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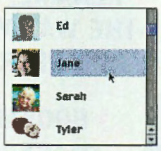


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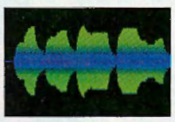

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SO MUCH INTERNET, so little time.

# MacAddict

FEBRUARY 2000

## highlights

42

**26 Zero To Hero in 24 Hours**
You can go from totally chic to totally geek in less than 24 hours with our timely tutorial on creating killer Web sites. We show you step by step how to take your Web site from conception to creation in less than a day (caffeine sold separately). **BY DAVID REYNOLDS**

**34 Fighting Corruption**
When your system turns sour, there's no need to call the cops—we've got all the reinforcements you need right here. Whether it's a bad disk, file, font, or preference, we'll show you how to right the wrongs. **BY BUZ ZOLLER**

**40 MacAddict Fun Pack**
The holidays have come and gone, and you've already played with all your new toys and spent your cash gifts. Poor you. Instead of throwing that pity party you hinted at, we've wrapped up a package of the 20 best shareware games of all time. Come on, get happy. **BY DAVID REYNOLDS AND IAN SAMMIS**

HEY! WHADD'YA LOOKIN' AT? I'm Clean. What?

## how to

**70 Control Your Control Strip**
That little tab in the corner of your screen may have been the original carrier of the brushed-metal plague, but it's also a phenomenally useful tool. **BY JOEY COOPER**

**74 Sketch with Photoshop**
Put those expensive filters away: Here's a cute way to create a sketch using just a scanner and Photoshop's transfer modes. **BY IAN SAMMIS**

**78 Make That Essay Fit**
Granted, it's the "I can't believe it's not content" way to handle a misbehaving essay, but if you're out of ideas and it's three in the morning... **BY IAN SAMMIS**

MR. POTATO HEAD meets Stretch Armstrong—yikes!

THAT'S A PRETTY shady zipdisk.

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**Volume 5, Issue 2**

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SO THAT'S WHAT THE DOTS on the spine are for!

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# every month


**12 Editor's Note**
Come on, lucky seven...Papa needs a new pair of shoes!

**14 Letters**
You know you like it.

**18 Get Info**
We all get to pick our valentines, but there's no love among the G4 accelerator card vendors. We'll also celebrate those who showed their love, and give you a sneak peek at a few logos that didn't make the cut.

**24 Scrapbook**
It's the hottest thing to hit silicon since the valley. It's the G4, and we delve deep into this little überchip to show you what makes it tick.

**44 Reviews**
Freed from fruit flavors, the (ooh) *graphite* iMac DV Special Edition bears our scrutiny. Lara's back, bigger and bustier than ever, in Tomb Raider III. Go modemless with the Palm VII and brushless with Studio Artist 1.1 and Painter 6. Download MP3s with QDesign's MVP 1.0 and play 'em on Diamond's Rio 500. How about ActionFiles 1.5.1 and EtherPeek 4.0? Read on. We dare ya.

**68 PowerPlay**
Star Trek junkies, rejoice! Your fix is here. We have a sneak peek at Star Trek Deep Space Nine: The Fallen. Plus, we've got a gem of a Myth screenshot series.

**82 Ask Us**
Finally, something useful. Buz answers your toughest Mac riddles.

**112 Shutdown**
You're laughing. We can hear you. Oh, wait—the cat just hacked up a hairball. Never mind.

LET'S DO THE LIMBO!


MacAddict

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That's Foto with an *F*. Good luck, Nikki and Kevin. Tin foil Macs are not soft! Welcome Niko.

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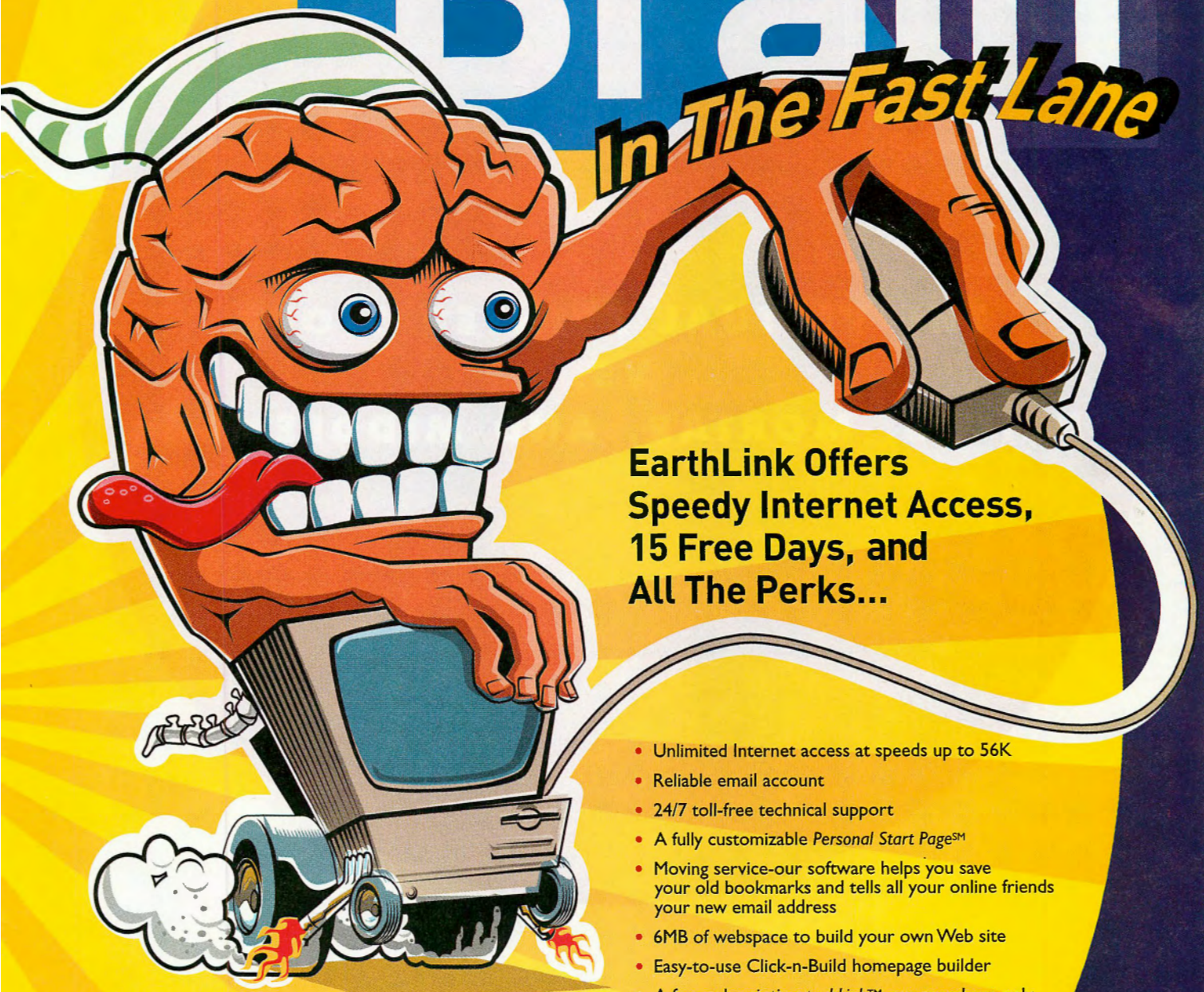

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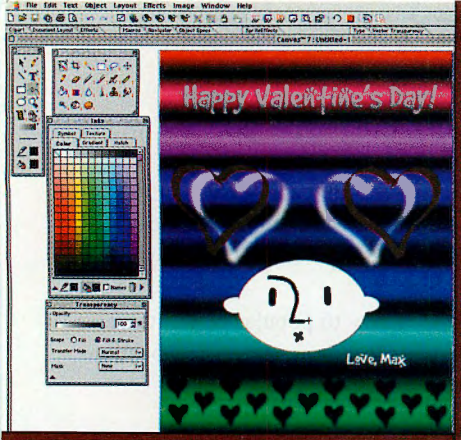


MAX SENDS HIS LOVE to all you dear readers, so pucker up, baby!

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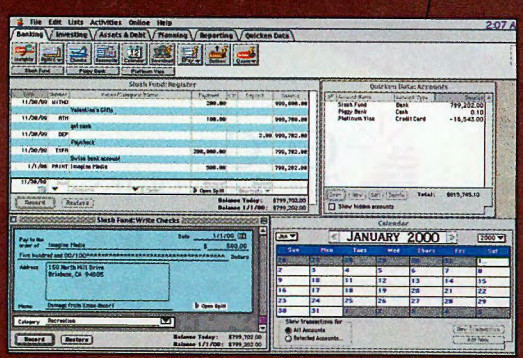


WHADD'YA MEAN, I have no money?! I've got checks, don't I?

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# highlights

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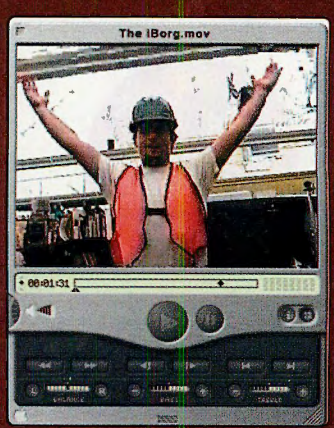


BOYS AND THEIR TOYS! iBot. iBorg. Call it what you want, but don't call it a hunk-o'-junk or The Boys will be upset. Catch a sneak preview of the latest creation to emerge from the *MacAddict* Frankenstein lab. No, we're not talking about Village People Guy here! Meet the iBorg—in its infancy—destined to roam where no PC addict has gone before (if they'd just hurry up and finish it!). Okay, boys, this thing can't sit up on blocks in the driveway forever...

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# editor's note

## Cheryl thinks the Microsoft verdict is boring, so I had to write about something else.

The other day I was hunched over a craps table with a bleary-eyed, sleep-deprived David Reynolds, and I got to thinking about how 90 percent of the PC world is freaking boring. Standing in the middle of a casino with $30 or so in bets spread out across the table may seem like a strange place to start pondering my own personal disinterest in the larger technology market. As it happens, however, I was at the craps table trying to avoid Comdex—that mega-behemoth of a PC industry trade show—which takes place in Las Vegas every fall.

This was the first Comdex I (or any *MacAddict* staff member) had ever attended, as Comdex is not typically a Mac show. But Apple's upswing has us thinking differently (and I was feeling lucky), so I loaded David and myself onto a plane and headed to the desert. I was even a little excited about the adventure. The PC fast lane is supposed to be filled with better video games, cool MP3 players, high-tech speakers, and gadgets to stunt any budget. I figured I'd gaze upon this wonderland with awe, both jealous over not having such toys and hopeful that they'd all make their way to the Mac.

...HE'S A ***BRIIIICK hoooouuuse...***

I was wrong. I knew it from the minute I arrived at the Las Vegas Convention Center. It was crowded, filled with people in suits and jammed wall to wall with bland corporate booths. I realized that if I worked on a PC magazine, I'd be trying to cover all this nonsense and I'd have to wade through all manner of ridiculous software. I'd be the one my readers expected to scrutinize all the different accounting programs, I'd be the guy that would have to test 50 different business management apps in order to find out what features would work for which people. Sure, these programs are functional, even necessary—but they're no fun and there are 10,000 of them.

> The PC fast lane is supposed to be filled with better video games, cool MP3 players, high-tech speakers, and gadgets to stunt any budget.

To make things worse, even the cool stuff for the PC gets beaten to death with repetition. Take $10,000 liquid plasma displays—cool, right? Not after you've seen 50 in 10 minutes, all of which look almost identical, and you realize that no one you've ever met could afford one of them. You'd *really* gag if you could see the unfortunate impact the iMac has had on the PC industry. One of the worst offenders came in the form of a hideous pink translucent casing you can strap onto your beige PC in a pathetic attempt to be trendy. Bad colors in ever-worse plastics were everywhere. I now understand why PC people curse the iMac.

The longer I strolled the convention floor, the happier I was that I work at *MacAddict*. We get to cover just *cool* stuff. The Mac generally has at least one decent program you can use for things you *need* to do (like taxes), but it also gets all the genuinely exciting apps—design tools, Web development apps, professional video and audio software. Sure, the occasional MP3 player and the Mac games arsenal lag behind, but my new Rio 500 (see *Reviews*, this issue, p58) is humming along just fine, and I get plenty of diverse gaming from my PlayStation and Nintendo 64. The Mac pond may be way smaller, but thanks to its simplicity and its appeal to creative people, by comparison our pond is filled with champagne.

## Staff Rants

Good people are hard to find. Read on, and you'll see what I mean.

**Narasu Rebbapragada**
**Associate Punk Rocker**

**Q.** *What do you think the government should do to punish Microsoft?*

**A.** Fragment Microsoft into 10 or so Babysofts, each with separate ad campaigns. Oh wait, that punishes us.

**Q.** *Who else needs to be punished?*

**A.** Anyone who wants NDAs (nondisclosure agreements) signed at a party. You know who you are.

**Ian Sammis**
**Associate Whiz Kid**

**Q.** *What do you think the government should do to punish Microsoft?*

**A.** Make them publicly apologize to anyone who bought or was forced to buy Word 6 for Mac, anyone who ever had to be in the same room as Microsoft Bob, and anyone who has ever had to sit through a PowerPoint presentation.

**Q.** *Who else needs to be punished?*

**A.** Red Hat, for having a market capitalization nearly equal to Apple's on the strength of one product it gives away for free.

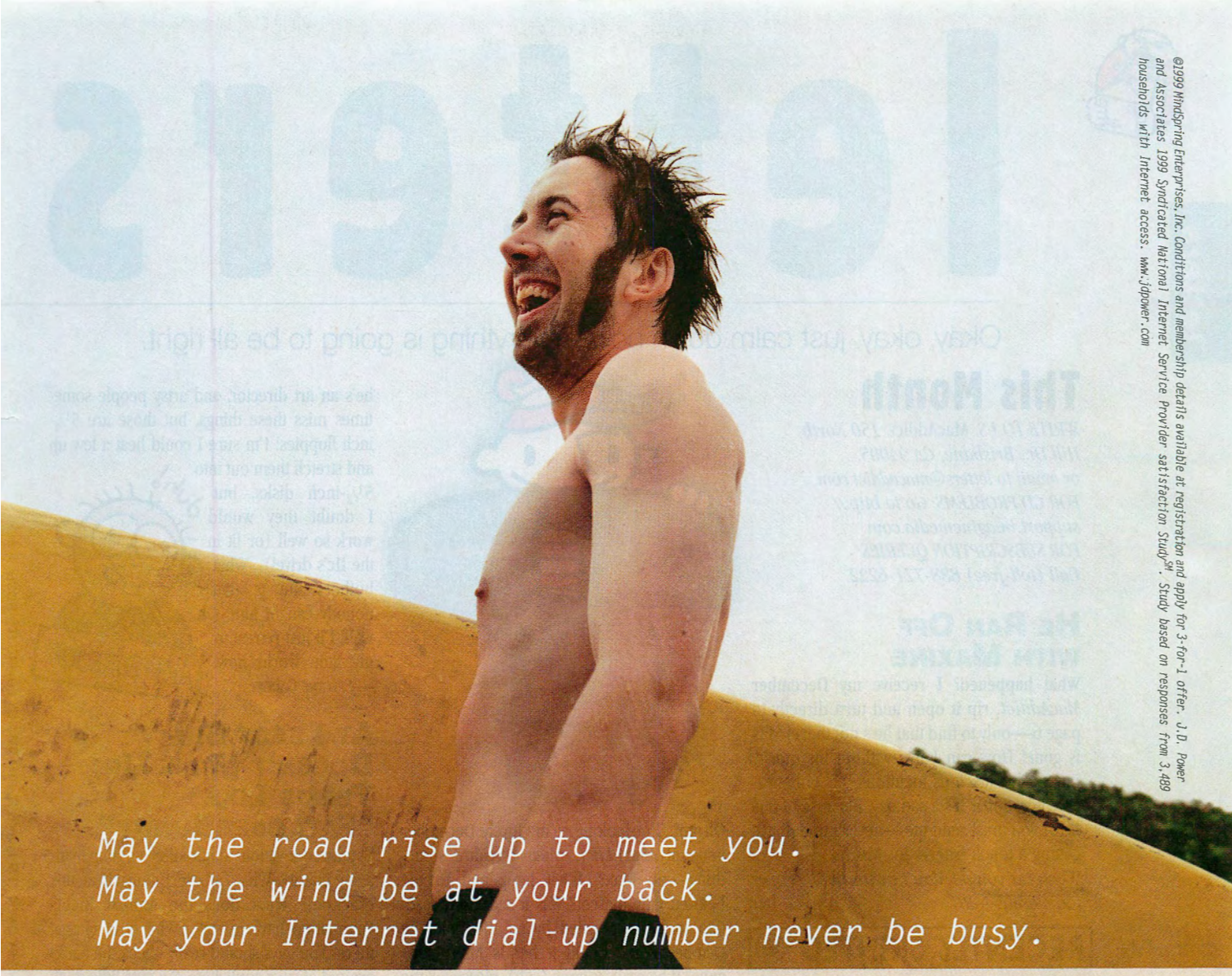
**David Ross**
**aka Kid Handsome**

**Q.** *What do you think the government should do to punish Microsoft?*

**A.** Well, actually, I'm not so sure about the verdict in the first place. Including a browser in your OS is the logical step to a better, fuller product, much like a TV-VCR system, or a waffle 'n' burger cooker. But either way, everyone at Microsoft should be forced to look at that gross picture of Gates in his pool with his flabby body and pasty Seattle-tan.

**Q.** *Who else needs to be punished?*

**A.** Brooke Shields, 'cause the show *Suddenly Susan* really sucks.



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# letters

Okay, okay, just calm down now—everything is going to be all right.

## This Month

*WRITE TO US:* MacAddict, *150 North Hill Dr., Brisbane, CA 94005, or email to letters@macaddict.com.*
*FOR CD PROBLEMS: Go to http://support.imaginemedia.com.*
*FOR SUBSCRIPTION QUERIES: Call (toll-free) 888-771-6222.*

### He Ran Off with Maxine

What happened? I receive my December *MacAddict*, rip it open and turn directly to page 6—only to find that he's not there! Max is gone! How can I live without his quirky quotes, his luscious locutions, his unbelievable iterations? It's a sad day. Because of this error you must send me—never mind, that's getting a touch trite.—Joe Martin

*Whatever you do, don't examine the cover too closely.—RC*

Oh no! I'm looking at my lovely December issue of *MacAddict*, when I realize something—no Max?! What happened to the beloved little mascot? Was it a delayed reaction to being crushed by an iBook in the October issue? Could it be? Is Max (sob) gone? If he really is gone (sob), please tell me (sniffle) so that I can call all my *MacAddict* friends and (sob) tell them the horrible news. I'm gonna miss you, Max! I better go, the keyboard isn't built to stand up to this many tears...—David Richmond

Imagine my shock when, after thoroughly examining the December issue, I discover... Max is missing from the front cover! Aaahhh!! He's also not in his little box underneath the editorial credits! What has happened to our darling little Max? Have PC zealots captured Adam?! Are we doomed to live without Max's wit on the front cover for eternity!? I'm organizing a campaign to save Max right now! Um...er...could you guys loan me $70 for http://www.savemax.com? Happy Macintoshing!—Jonathan Claydon

### You Do That

I just watched the staff video on the December CD-ROM. Your fabulous art director David was babbling something about $5\frac{1}{2}$-inch floppy disks for his Apple IIc. Uh...okay, sure, he's an art director, and artsy people sometimes miss these things, but those are $5\frac{1}{4}$-inch floppies! I'm sure I could heat a few up and stretch them out into $5\frac{1}{2}$-inch disks, but I doubt they would work so well (or fit in the IIc's drive!). What bothers me is that nobody caught him! Oh well, I'll just retreat to my little world now.—Spectre Gadget

### At Least She Doesn't Make Up Terms Like "FatLoserBunny"

You hired a vicious duck killer as your managing editor? What FatLoserBunny chose this crackpot? What does the Animal Rights Foundation have to say? Who is in charge there? You guys should really check the background of your applicants. If a cute little duck gets smashed, what's gonna happen to Prison Guy? (Sorry—all hail editor Capps!) Wait, maybe she has a sick, twisted picture of the bloody wheels you guys can use on the cover—I mean, she is pretty warped. Hire me as your new managing editor. I promise not to run over any ducks (and if I did, I would feel really bad...not laugh!). I only ask for food, water, a working bathroom, and a fully expanded PowerMac G4 tower with a 24-inch Apple Cinema Screen. Fire the cruel duck killer!—Nathaniel

### We Left Out Orange, Too

Okay, well, it looks like you flubbed again. In "Eeny Meeny Miny iMac" (Dec/99, p45), you claim that the graphite iMac is the "sixth—yes, sixth—color." You guys really should go

### RECENTLY SIGHTED

**I don't know if you have received one of these before, but our grape iMac had a baby. I was in an office superstore and saw a product from Timex I just had to buy to keep my iMac company. The only bad news is that owners of tangerine iMacs are out of luck.—Tom Le Blanc**

**APPLE SHOULD FILE suit any day now.**

ILLUSTRATIONS BY DAVID "I'M LIVING IT, BUT I'M NOT LOVING IT" ROSS

back to grade school and learn to count. As every Mac addict knows, Bondi blue was its own distinct color, plus blueberry, tangerine, grape, lime, strawberry, and now graphite. The grand total is seven. Get it right.—MIKE

## OLD SCHOOL

Check this out! I was recently looking through my garage and found some old comic books. Being a Mac user, I noticed this ad on the back of an old comic book from 1985. Check out the specs on this baby. I have one question: What the heck is an "extended 80 column card?" I wonder if I can put one in my G3.—CHRIS WIEMER

**WE WONDER what it would look like in tin foil.**

## WHATEVER HAPPENED TO *WIRED* MAGAZINE, ANYWAY?

Can you believe the nerve of these people? I certainly can't. *Wired* magazine has labeled "the Apple religion" as one of the things the 20th century should leave behind! They do some pretty nasty Mac addict bashing and pretty much manage to tick me off. Screw them! As long as I have anything to say about it, there'll be no giving up on the Mac for me!
—JOHN ZERATSKY

## ADVERTISING CHALLENGED

I accepted the challenge on the bottom of your December cover.

"What challenge?" you ask. The "Our Biggest Issue Ever!!!" challenge.

My rules for this game are simple:

1. Survey all Mac-related magazines.
2. Remove all pages that have only advertisements on both sides.
3. Leave in any page that has staff-produced information on one or both sides (even if that area is only a couple of inches wide). The exception to that rule is subscription order forms. Those are fair game for removal because these are my rules. Remember?
4. Compare what is left of the magazine with a same-issue magazine that has not undergone surgery for removal of excess pages.

Why do I rip out these "ads only" pages? Because I don't find advertising educates me as much as real information. It also reduces the weight and size of the magazine for storage purposes.

Every month *MacAddict* seems to win the Most-Pages-Left-After-I-Rip-Out-the-Excess Award. Perhaps your next issue should proclaim on the cover: "Advertisers: Your money is not wasted in our magazine, because people don't throw away your ads."

Congratulations, *MacAddict* staff, you are doing something right—intentionally or not.—BARBARA TITSWORTH

## SOMETHING FOR EVERYONE

Hello. Here's a greeting from Holland. It's the first time I got your magazine. Some hard times reading the English, but one thing isn't hard...enjoying the music from your CD!—TYMO PEL

## GIL AMELIO'S ANSWERS WERE THE SAME

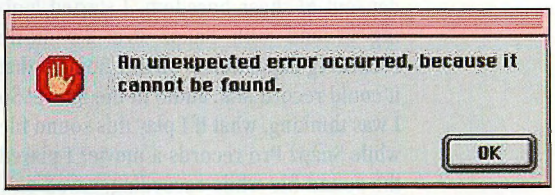
I put up one question per day at my locker and have people guess the answer. If the person gets it right, they get a paper iMac. One day I put together a bunch of questions and let people try to win an iMac poster. I just had to share one person's response:

Q: True or false? The company Macintosh made the iMac.
A: Maybe.
Q: Fill in the blank: _____Wire is the best connection standard for digital cameras and hard drives.
A: The.
Q: Name nine of the most important features in Mac OS 9.
A: Blue eyes, blond hair, dimple on left buttocks, freckles, wears contacts, 25-inch waist, Harley Davidson tattoo, mole on upper lip, missing left earlobe.
Q: True or false? MP3 files can be played on a portable player compatible with the Mac.
A: True, but you can also use a porta-potty instead of a portable player.
Q: What relationship does Pixar Entertainment have with the Mac?
A: Great aunt on my sister's side of the family, once removed.
Q: Name the different versions of iMacs and the colors associated with each version.
A: Version: Sahara desert. Color: dusty sand. Version: the mighty Pacific. Color: true blue, just like you. Version: black hole. Color: white pastel.
Q: What's the speediest processor known to be in a Mac?
A: RJ in his car (RJ is a friend of ours).
Q: Name two connections that the U.S. Army has with the Mac.
A: Plug, socket.

She doesn't have a preference for PC or Mac, she doesn't own a computer, and she doesn't know enough about computers to make fun of Apple. She was just trying to be creative. I think I'm going to give her a Think Different poster.—STEPHEN

## WE HATE IT WHEN THAT HAPPENS

I don't know if you've seen this one before, but my iMac/266 offered up this error message when it apparently bailed out of a SETI@Home session this morning. Kinda reminded me of the Cheshire Cat—it faded away until just the, uh...dialog box?... remained.—DAVE CROCKETT




**COUSIN IT sure can be elusive.**

## AREN'T YOU GENEROUS

Heya. I'm a *huge* fan of *MacAddict,* and I also have the pleasure of working for a pro-Mac company. It's these two things that cause me to write this.

In the latest issue ("Get Info," Dec/99, p26) under the little ADB tag in the chart, you list the company as "Griffin Technologies." Well—and I know it's a small mistake—the name of the company is Griffin Technology. I wouldn't have caught it, if I didn't work for 'em (actually, my dad is the one who designed the company's logo). I'll forgive you if you do an entire article about Griffin—I can provide an interview

with a hard-working employee who makes and packages the products. He's a very intelligent, handsome devil, and I'm sure he could take some time out of his busy schedule to talk with you.—EVula

## Fuzzy-Wuzzy Was an iMac?

Come on! In your most recent issue, your staff members came up with all kinds of uncreative stuff for the next iMac. The next iMac should be fuzzy! That's right, with fur! Everyone says the iMac is cute. And what comes after cute? Cuddly! Everyone should have a Mac they can nuzzle their face into if they are feeling a little bad. Why are cats so successful? They are fuzzy and they purr. Make a computer with fur, and you have all the attractive qualities of a cat. Plus, the static from the monitor would do neat things to all that fuzz...

Of course, Apple might have a little trouble reconciling *fuzzy* with *blueberry.*
—Derek Dohler

## Sounds Good!

Hello, fellow Mac addicts! A while back, after Ambrosia Software released Snapz Pro 2, I was trying to convert a sound file. Absolutely nothing I tried could convert this format to AIFF. I was stumped and went on with my normal daily routine, flaming PC news groups and so forth. One day, out of sheer boredom, I started fooling around with Snapz Pro 2's movie recording capabilities. Then I noticed that it could record Mac audio in the movie! So I was thinking, what if I play this sound file while Snapz Pro records a movie? I played the sound file while recording, saved only the audio track, and boom. There it was, in AIFF format. Snapz Pro 2 is the *ultimate* sound conversion utility. If you can play it, you can convert it!—Dave Lesovoy

## Do You Believe in Arranged Marriages?

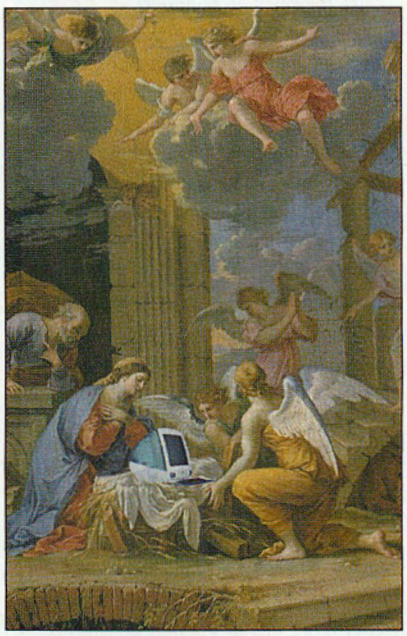
With all due respect to Wysmar Clealand (*Letters*, Dec/99, p14), I have him and his daughter named Claris beat. I named my firstborn MacKeegan Tosh Songer. Really! Tosh is an old family name that my wife liked, but she refused to let me name him Macin Tosh. She came up with MacKeegan, and I felt that was close enough.
—Mark Anthony Songer

## How Divine!

I saw on the Web site that you would like to see some nativity scenes. Well, after having a little Photoshop fun, I give you two.

Hope you enjoy them.

Praise Steve Jobs.—Jack Barker



HOLY iMac!

## What Do You Do?!

I recently read your test "Are You Becoming a Mac Addict?" (*Get Info*, Dec/99, p26). I scored a 35, thus specifying a terminal case of Mac addiction. I thought your test was good but needed some additions. Here are a few I came up with myself:

1. In a formal situation, such as school or work, when you are supposed to sign your name, you:
A. Sign your name.
B. Put an "i" at the beginning of your name.
C. Put an "i" at the beginning of your name and stick weird letters in random areas of the word.

2. You are forced to use a Windows PC for one reason or another. You:
A. Try to live with it.
B. Add utilities that make it look and act more like a Macintosh.
C. Write a Mac OS emulator from raw assembly code.

3. A stupid Windows bigot walks up to you and says that Macs suck. You:
A. Start to cry.
B. Argue with him using speech riddled with complicated technical terms in an attempt to make him see the "good side" of computing.
C. Argue with him...and win.

4. You will only date someone if he or she:
A. Is sweet.
B. Shares your addiction to the Mac OS.
C. Can code in Hex and manipulate Finder code using only a copy of ResEdit.

5. You believe the most important event that ever happened is:
A. The fall of the Berlin Wall or something else not included in answers B or C.
B. The release of the Macintosh in 1984.
C. The invention of the ModalDialog A-Trap.

I just thought you might enjoy reading my additions to your test for Mac addiction.
—iPa84t

## Can You Frag People?

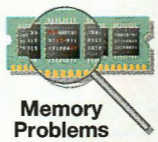
Woohoo, I'm in *MacAddict!* Believe it or not, I didn't write you just to say that! I also have a valid comment.

It disturbs me that every time you people publish an article about multiplayer games for the Mac, you never mention Avara by Ambrosia Software (http://www.ambrosiasw.com).

Granted, Avara doesn't render textures, 3D particle effects, or clouds, but I would still say it is one of the best multiuser 3D games for the Macintosh. And best of all, it's shareware! Avara can run on the slower modems most of us still have, and it runs fine on older computers. With that said, send me a G4 so I can play Quake III.—Andrew Cantino

# The Seven Deadly Macintosh Sins:

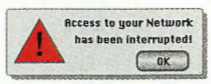
Software Conflicts



Memory Problems

Viruses

Hardware Problems




Network Problems

Disk Damage

Damaged Software

# Salvation:

When good Macs go bad and fall from grace, it's good to know there's help nearby. Salvation is only a mouse-click away with the new TechTool Pro 3. Now featuring virus protection and conflict detection, TechTool Pro is the only program you need to help abolish the evil forces that have possessed your Macintosh. TechTool Pro 3 checks more aspects of your Macintosh than any other utility available. Period. Besides repairing and recovering damaged drives, eradicating viruses and catching the occasional software conflict; you can also test all those other critical parts of your system that other utilities simply ignore. Like RAM, logic board components, floppy drives, scanners, modems, internet connections and so much more. TechTool Pro even supports technologies like System 9.0.1, "Pure" HFS+, Firewire and USB drives, and all of the latest Macintosh models.

TechTool Pro can also help you in between times of trouble. Our disk and directory optimize features can help improve the performance of your Macintosh as well as help circumvent problems before they happen. The TechTool Protection control panel will regularly check your system so you don't have to. It will also back up critical directory data, so if something goes wrong, you'll be up and running in no time flat.

But just because TechTool Pro is the most advanced Macintosh troubleshooting utility available doesn't mean that it has to be difficult to use. Our easy-to-use interface makes checking and fixing your Macintosh as easy as pressing one button. For advanced users, expert access allows you to control and configure TechTool Pro in almost any way you wish.

So if Macintosh troubles are turning your life into a living Hades, check out the tool of the trade: TechTool Pro. After all, you have the most powerful computer in the world. Shouldn't you be using the most powerful utility?

**Purchase TechTool Pro 2 now and receive a free upgrade to TechTool Pro 3 when it ships in Q1 2000!**

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# get info

All the news that won't get us sued.

## Be Our Valentine

*Four people who rock our world*

With love in the air and Valentine's Day just around the corner, our thoughts turn to those people who most warranted our affection this year. Last year that biggest of all teddy-bear iCEOs, Steve Jobs, won our hearts with his winning persona and chic black turtleneck. This year we've gotten over our school-age crush and moved on to some folks who *really* gave Mac addicts something to swoon about.

### Jon Rubinstein, senior vice president of Hardware Design, Apple Computer

It's always tempting to let Jobs hog the credit for the great products cranking out of Apple, but we're not falling for it this year. Rather than feed Steve's megalomania, we decided to honor Jon Rubinstein—the man responsible for Apple hardware—as our Valentine. Even with the releases of QuickTime 4, OS 9, and Final Cut Pro, hardware easily outpaced software in Cupertino this past year, bringing into our eager hands the G4, the new iMacs, the AirPort Base Station, and yes, even that purse known as the iBook. So even though he stole Nikki's cab at Macworld New York, we're still keeping a special place in our heart for ol' Jon R.

### U.S. District Judge Thomas Penfield Jackson

While we don't know a whole lot about Judge Jackson personally, we do know he gave Microsoft a pounding in his findings of fact for its antitrust trial. Judge Jackson agreed that Microsoft owns a monopoly on operating systems, and forcefully stated that it abused its monopoly by raising the Windows price tag for uncooperative hardware manufacturers and leveraging access to its APIs to prevent development of competitive software. Possible punishments include carving up Microsoft into separate business units and making Windows APIs public—thus enabling anyone to make their own Windows-compatible operating system—but it'll likely be years before the final outcome. At least Jackson has proved that high-priced lawyers and false sentiments can't snow him. Finally, Microsoft's predatory behavior gets the recognition it deserves.

### Jonathan Ive, vice president of Industrial Design, Apple Computer

Steve Jobs didn't come up with the case designs that made the PC industry see bright-colored and transparent plastic potential in every cord, case, and caddy. It was the Apple industrial design team that gave the iMac and iBook their candy coats, and Jonathan Ive is the man in charge. His use of plastics has spawned more imitations than a Dana Carvey tribute banquet. In the past year alone, he has given us six iMac colors (seven total, including Bondi Blue the year before last), the iBook's toilet-seat shape, the elegant G3 and G4 cases, and the crazy-looking AirPort hub. Thanks for your hard work, Jonathan—won't you be our Valentine?

### John Carmack, cofounder, owner, and lead programmer, id Software

The *MacAddict* offices have become a hellpit of nonproductivity thanks mostly to Carmack's decision to bring Quake III Arena to all possible operating systems, including the Mac OS. Sure, the game employs cutting-edge 3D shooting technology and it's *really* fun, but that's not why we've chosen to make John Carmack our Valentine. This self-taught programming wiz's real contribution is his public support of Apple. Having the famously shy yet blunt-spoken Carmack back the Mac as a games platform onstage at Macworld Expo lent a much-needed credibility to Mac gaming. We also applaud Carmack for aggressively supporting alternatives to the Windows hegemony.—*RC*

## Our *Un-Valentines*

We'd like to say that everyone in the Mac community has contributed to The Cause this year, but we suspect that a few individuals have actually been working *against* us. Here's our list of the people we loved to hate this year:

### Sierra Studios and Valve Software

They canceled Half-Life. We're still pissed.

### Phil Schiller, vice president of Worldwide Product Marketing, Apple Computer

Apple's most patronizing VP is bursting with cheesy marketing slogan goodness.

### Quark

Paranoid and arrogant—like Steve Jobs without the charm—Quark is still a difficult company with a great product.

### Future Power and Daewoo

This duo's E-Power personal computer is the more blatant and flimsy of the two iMac rip-offs. Luckily Apple stopped them dead in their tracks.

ILLUSTRATIONS BY DAVID "BROKEN HEARTED" ROSS

# QuickTime Goes Live

*New versions of QuickTime and its server previewed at conference*

ILLUSTRATION BY MIKE CRESSY

In an effort to build momentum for QuickTime, Apple hosted the first-ever QuickTime Live conference in Los Angeles last November. Frank Casanova, Apple's QuickTime product manager, said that the conference was meant to bring together successful QuickTime authors to talk to each other and to the world at large, and to showcase great QuickTime products. Thousands attended the convention, including representatives from ESPN, HBO, Rolling Stone, CNN, and even the Weather Channel.

During the conference, Apple previewed QuickTime 4.1 and QuickTime Streaming Server 2. QuickTime 4.1 will boast a few new features, including seamless ad insertion (a relief for all of you who miss seeing advertisements while watching QuickTime) and support for AppleScript support, better firewalls, and SMIL (Synchronized Multimedia Integrated Language). Based in XML, SMIL is the W3C standard that lets Webmasters divide multimedia into separate streams, sending each independently to the receiver's computer and having them resynchronized there. For example, you could send an audio stream, a text stream, and a video stream separately, and reassemble them in a single presentation using SMIL. New features in QuickTime Streaming Server 2 include password protection (to create private broadcasts), a new plug-in architecture, and support for third-party analysis tools. No shipping schedule for the new products was announced.

During the conference, CNN and Apple also announced that CNN would use QuickTime 4 to deliver some of its streaming content. A while back, CNN snubbed QuickTime in favor of Real Player technology.

When asked whether Apple would be changing the brushed-metal interface of QuickTime Player, Casanova replied that the reason Apple originally gave the interface a brushed-metal appearance was to separate QuickTime, the system-enabling technology, from QuickTime, the product. He added that we should be noticing this brushed-metal look and feel across Apple's digital video and media products (including, presumably, Final Cut Pro and Sherlock 2). We took this as an unfortunate "no."

Phil Schiller, Apple's marketing vice president, talked about QuickTime's success, Final Cut Pro, and a multitude of other QuickTime-related goodies—including a megabit-streaming version of a *Toy Story II* video—during his keynote address at the conference. The best part of the keynote was unscripted, however. When a demo failed, Schiller was reported to have used some choice Anglo-Saxon expletives, thinking he was offline. He wasn't, and the tens of thousands of virtual attendees listening via the Webcast experienced a genuine unrehearsed Phil Schiller moment.—*DR*

# SoftWindows Reborn

*FWB's purchase gives emulation program another chance*

Over the last year, SoftWindows (one of the oldest software PC-emulation packages for the Macintosh platform) has fallen into a sad state. Its developer, Insignia Solutions (http://www.insignia.com) shifted its focus away from Windows emulation early in 1999, choosing instead to concentrate its efforts on the company's Java system for consumer electronic devices. As a result, SoftWindows hasn't been updated in almost a year—it's no longer compatible with either Mac OS 9 or the latest versions of Windows 98. As we write this, SoftWindows isn't even on the market—Insignia's no longer selling it.

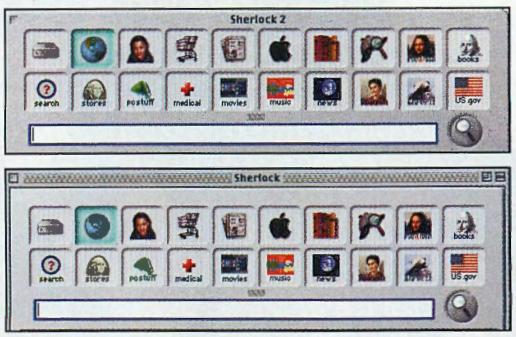
The few SoftWindows users who haven't jumped ship to Connectix's Virtual PC (Connectix believes that program's share of the Windows emulation market is over 90 percent) will be cheered to know their platform has just gotten a new lease on life. FWB Software (http://www.fwb.com) bought SoftWindows and RealPC (SoftWindows' DOS-based sibling) as the first step in its strategy to move beyond its traditional role as the principal source of Macintosh drivers for hard drives and CD-ROMs. FWB is working hard to repair the problems a year of neglect has caused, and hopes to have a viable contender for Virtual PC's throne on the market by early January.—*IS*

# get info

## Shareware Pick of the Month

### Sherlock II Winzap

**SHAREWARE FEE:** Free
**URL:** http://www.teamdraw.com/raul/stuff/stuff2.3.html
**REQUIREMENTS:** Sherlock 2 (comes with Mac OS 9)




GO FROM THE BRUSHED-METAL horror at the top to the more calming, familiar window on the bottom with Raul's Sherlock II Winzap utility. The plethora of search channels also came from Raul's Web site.

FIND SHERLOCK II WINZAP 1.0 on The Disc.

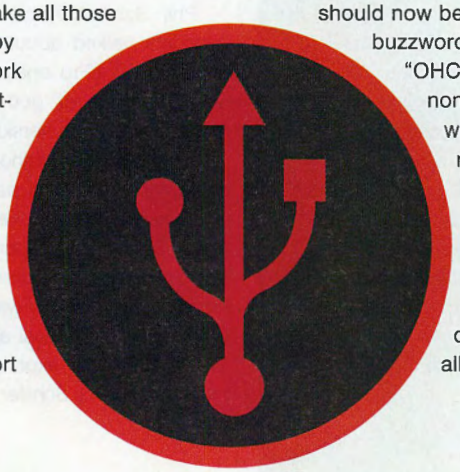
The brushed-metal channel virus may have moved from the QuickTime Player to infect Sherlock 2, but shareware author Raul Gutierrez isn't having any of it. Instead, he wrote the nifty utility Sherlock II Winzap, which at least returns Sherlock's look to some semblance of a Mac application by adding a proper window frame—complete with title bar, zoom box, and window shade. Sherlock II Winzap only works on unmodified copies of Sherlock 2, but it does provide the new search engine with a more classic—and much simpler—look. The question now is, can he do the same thing for QuickTime?—*DR*

## USB Marches On

*New release cleans up support for generic adapter cards, storage devices*

Apple's hyperkinetic USB team has been releasing new drivers at a furious clip. When we first reported on their efforts only three months ago (see "USB Madness," Nov/99 pg.28), Apple was putting the finishing touches on version 1.3 of its driver. They've now bumped the version number up again—to 1.3.5—and reamed out a bunch-o-bugs.

The new driver fixes some bugs in the generic driver for storage devices, which should make all those USB-based floppy replacements work just a little bit better. Apple's also reamed out their Adapter Card Support package, so OS 9 users without USB ports can take advantage of Apple's support of generic PCI or CardBus USB cards (the previous generic drivers weren't Mac OS 9 compatible). This support should let any correctly-built card that adds USB slots to your computer just work, without any need for Mac-specific drivers. There are certain to be exceptions (a variety of problems were immediately reported to Ted Landau's MacFixit site, http://www.macfixit.com), but the majority of 3rd party cards should now be supported. The buzzword to check for is "OHCI compliant"—nonstandard cards will still be nothing more than inert lumps of plastic and solder, draining power from your computer without doing any good at all.—*IS*



## New for the Mac

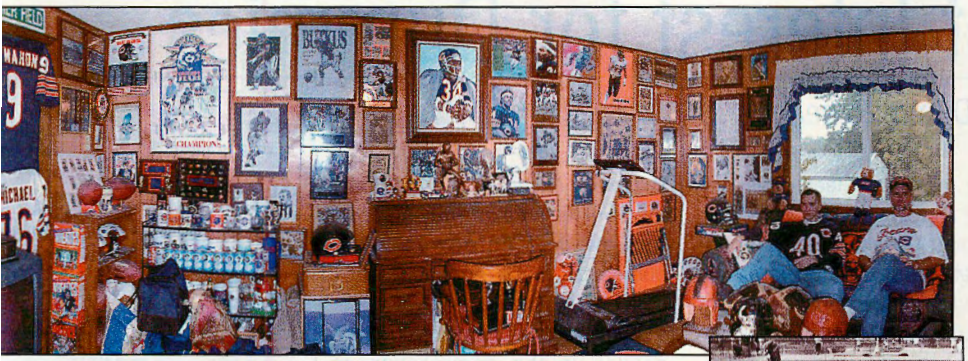
**DREAMWEAVER 3 FIREWORKS 3 STUDIO**
**(Macromedia, $399, http://www.macromedia.com)**
Dreamweaver 3 Fireworks 3 Studio combines Macromedia's dynamic Web duo into one package, offering new versions of Dreamweaver, the popular Web authoring software, and Fireworks, the company's Web graphics software. Among Dreamweaver 3's new skills are the ability to optimize and format Microsoft Word content and store information about a Web page in Design Notes. You can also customize Dreamweaver using JavaScript, HTML, and XML. Fireworks 3 retains the layers and text of imported Photoshop files, and exports to a number of Web formats, including Flash. Of course, the revised Fireworks integrates more smoothly with Dreamweaver. You can still purchase both programs separately.

**HARMAN KARDON iSUB SUBWOOFER**
**(Harman Multimedia, $99, http://www.apple.com)**
Designed exclusively for Apple by Harman Multimedia, the iSub is a 6-inch subwoofer with a 20-watt amplifier that plugs right into your iMac's USB port, lending much-needed bass to your gameplay and DV movie-watching. The futuristic, translucent subwoofer works only on new iMacs with Mac OS 9, and is sold through the Apple Store and Apple-authorized resellers.

**CARRARA**
**(MetaCreations, $399, http://www.metacreations.com)**
The wild-eyed folks at MetaCreations have combined Ray Dream Studio, Infini-D, and some all-new goodies to introduce Carrara 1.0—a 3D-modeling, rendering, animation, and special effects application for Web and print media. Designed for users at all levels, Carrara includes a new, simplified interface, a range of renderers, Metastream support for Web production, and Open GL support for 3D hardware accelerators.—*NR*

# And the iMac Goes To...

*Chicago Bears fan Adam Jones gots the love!*



**AND YOU THINK the people who write to our *Letters* section need to get a life!**

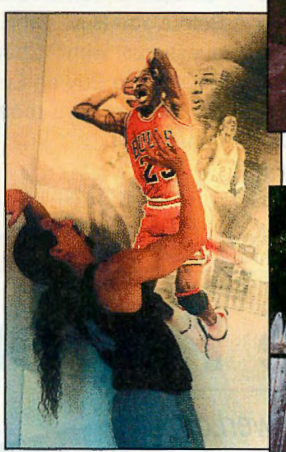
All right, okay, we promised we'd announce the winner of our "Show Your Love" contest in the January 2000 issue, and we promised that the lucky winner would get a new blueberry iMac—and none of it happened. We know—quit with the letters already. As it turns out, we were still flooded with entries when the January issue rolled through, so we put it off a month. But now it's February, and we have a winnah!

Congratulations go to Chicago Bears superfan Adam Jones for showing—beyond a shadow of a doubt—his love for his favorite sports team. According to Adam, his father has been a Bears season ticket holder for 23 years, and once Adam even got to kick a field goal during a game halftime. The duo's collection contains over 70 footballs, 15 jerseys, 12 helmets, and hundreds of pictures. (Adam made no comment as to what Mom thinks of the Bears shrine room).

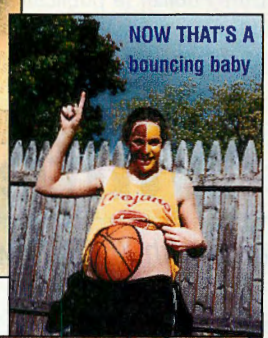
For proving his fanaticism in this QuickTime VR panorama a friend constructed (on a Mac, of course), Adam wins an iMac DV courtesy of Aspyr Media, and a complete suite of Aspyr games including Madden 2000 and Tomb Raider III.

We also recognize our five runners-up, who will receive copies of Madden 2000, also courtesy of Aspyr Media. These include Jeremy Herrman, whose bedroom is a bizarre mix of Apple and Charlotte Hornets paraphernalia; Susan Carver, a USC fan expecting a new bouncing baby Trojan any time now; Bill Dorr, our favorite pool-shreddin' 75-year-old; Reymond Pagé, who can't stop Michael Jordan even in his fantasies; and Julie Sloat, who we think likes the Minnesota Twins, but we're not sure. Congratulations, you sports nuts!!!—*RC*

**MY HIP!!!**



**HEY, MAN, he charged!**



**NOW THAT'S A bouncing baby**

**JULIE LIKES A BASEBALL TEAM—if only we could figure out which one.**

**HANGING NEWSPAPER on the wall is a fire hazard!**

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# Conflict of Interest for Dummies

*IDG pimps popular...*for Dummies *series*

Wisdom tells us to leave this one alone, but we're not going to. IDG has teamed up with Epson to publish a booklet called *Buying an Ink Jet Printer for Dummies*—yes, part of the wildly successful *Dummies* series, which usually provides solid and impartial advice. In this case, though, the booklet provides print samples from an Epson printer while indirectly extolling the virtues of Epson technologies—all wrapped in the *Dummies* package.

The kicker here is that the IDG-owned magazine *Publish* (a publication aimed at publishing types) printed a news item about *Buying an Ink Jet Printer for Dummies*, noting that the booklet is full of "buying tips designed to empower consumers to make educated purchasing decisions."

Our favorite "empowerment" section is the combination of "Chapter 5: Ten Questions to Ask Before You Buy" (which poses 10 questions) with "Chapter 6: Ten Reasons to Buy an Epson Printer" (which answers those 10 questions).—*DR*

**IT'S LIKE PEELING AN ONION**
**but don't you worry, you won't cry.**

IDG strikes again

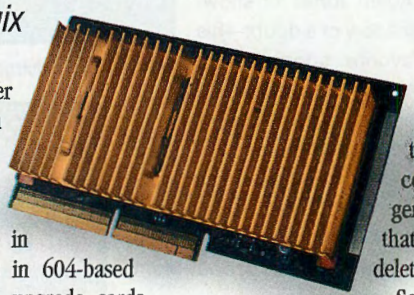
Epson America's *Buying an Ink Jet Printer for Dummies* is a 3[illegible] page booklet designed to help consumers purchase inkjet printe[illegible] that fulfill their needs. The booklet provides useful informat[illegible] such as the differences between various inkjet technologies, an expl[illegible] tion of printer terminology and insightful bu[illegible] tips designed to empower consumers to make[illegible] cated purchasing decisions. Epson teamed up[illegible] IDG Books' Dummies Press to create the ea[illegible] read and informative booklet. The book is cu[illegible] ly available through Epson America's Web[illegible] www.epson.com/whatsnew/promotions[illegible] mies.html. (*Epson America*, www.epson.co[illegible] Books, www.idgbooks.com)

**Online enhancements**

Kodak is providing users of its DCS 300, 500 and 600 series digital cameras and Canon D2000 and D6000 digital cameras with free software enhancements. Available on Kodak's Web site at www.kodak.com/go/drivers, the software lets photographers customize camera functions and includes sharpening features, integrated noise reduction and standard ICC profiles. In addition, new firmware opens up applications for the cameras' second PCMCIA slots. (*Kodak Professional*, www.kodak.com/go/professional)

# Dueling White Papers

*Newer fights a war of words with XLR8, PowerLogix*



White papers (the industry term for technology documents) serve a variety of purposes, including informing developers of esoteric technical points and giving failing projects a false sense of progress. Four of the best known manufacturers of G4 upgrade cards, Newer Technologies (http://www.newertech.com), XLR8 (http://www.xlr8.com), Sonnet Technologies (http://www.sonnett.com), and PowerLogix (http://www.powerlogix.com), have discovered a new use for white papers: They're using them as weapons in an unusually nasty war for the processor upgrade market.

Newer started the fracas on November 14 with a white paper claiming that developers should use only a single optimal bus speed for G3 or G4 upgrades. The paper touted the company's own solution, in which the upgrade card autosets the bus speed to maximize memory access speed, over PowerLogix's solution, which allows the user to select from a range of bus speeds. PowerLogix responded the next day, claiming that benchmarks show that an increase in bus speed can increase system performance even if the "optimum" speed is passed.

On November 17, Newer fired off a second, much longer white paper, detailing problems that had arisen with the G4's Speculative Processing capability in upgrade cards. The ROMs in 604-based Macs don't keep G4s with upgrade cards from accessing hardware when they shouldn't, potentially leading to serious crashes. Newer fixed the problem by adding additional hardware to its G4 upgrade card, while the other companies wrote software patches instead. Newer's argument that users can delete software patches during PRAM zaps immediately following startup drew an angry reply from PowerLogix. PowerLogix at first claimed that PRAM zaps couldn't remove its software fixes—an incorrect claim. PowerLogix quickly retracted this argument, simply touting its solution as simpler and less expensive than Newer's. PowerLogix closed its paper by accusing Newer of trying to "confuse the market until their product [was] available." (Newer's G4 card went to market later than either PowerLogix's or XLR8's.) Both Sonnet and XLR8 responded less aggressively; each simply pointed out that their products come with emergency boot floppies that will restore a deleted patch.

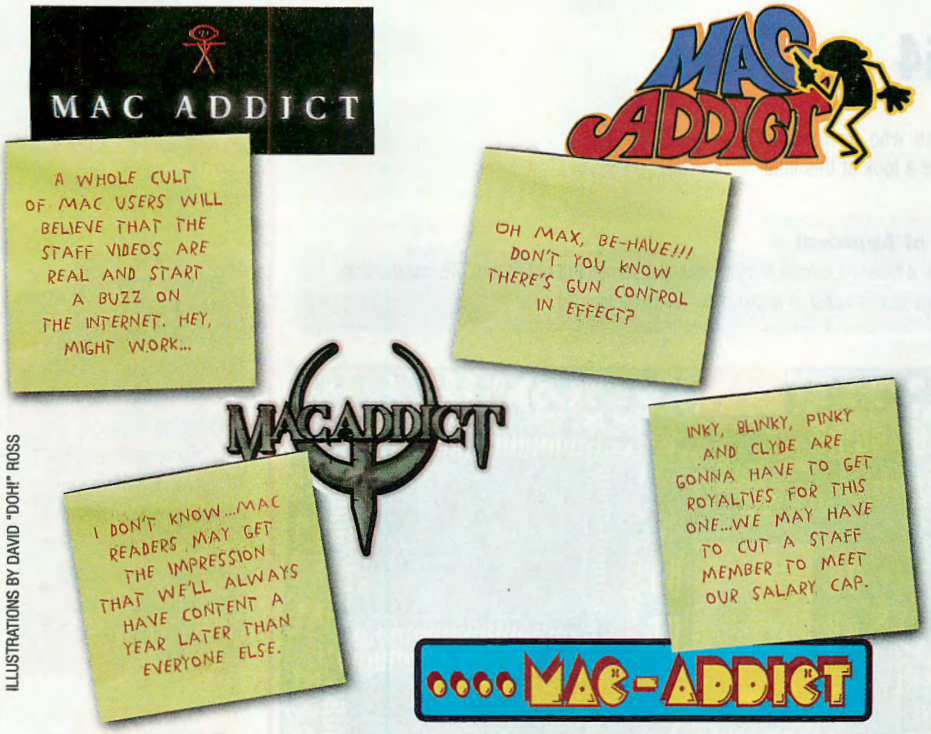
So who's in the right in this speedup skirmish? When it comes to bus speeds, PowerLogix's demonstration is convincing—even if Newer were completely correct, users could set cards with bus speeds at their optimal value. In the latter battle, though, Newer has a point. In our testing of an XLR8 G4 upgrade card, we encountered the profound system instability one would expect from Speculative Processing problems (we found no reference to a boot floppy in XLR8's documentation or materials). Apple engineers we queried were equally dubious of software solutions, pointing out that it's difficult to keep other companies from inadvertently writing over one patch with another. As long as users keep the potential problem in mind, the software patch should work fine—but hang on to your boot floppy.—*IS*

ILLUSTRATION BY DAVID "DUMMY" ROSS

# The Other Logos

## *Redesigns that didn't quite make the cut*

From the first screams of anguish that arose when Max left the cover, our gradual redesign has been drawing cheers, protests, and debate. Here are some redesigned logos we sensibly decided not to use—thereby averting possible catastrophe.—*IS*




ILLUSTRATIONS BY DAVID "DOH!" ROSS

# Hardware Hack from Hell

## *Executive editors and their exploding PowerBooks*

It started innocuously enough—the tiny latch that holds the door of one of the PowerBook G3s in our office jammed, preventing us from keeping the door shut. Most people would have either ignored the problem or sent the PowerBook off to an Apple dealer, but executive editor Dave Reynolds isn't most people. Trusty Torx screwdriver in hand, Dave promptly began burrowing deep into the bowels of his PowerBook. After all, that latch needed fixing; besides, all that soy sauce wasn't getting *itself* out of the machine.

Days later, Dave hit bottom (literally—he reached the piece of metal at the bottom of the PowerBook). With a triumphant yell, he flipped the jammed latch back into place and reassembled his PowerBook. It started up, began to boot, then crashed horribly. It hasn't responded to the power switch since.

After careful consideration, we've come to the realization that Dave's experience can teach us all a valuable lesson: There really are times when Apple's got a good reason to tell us we should contact an Apple-authorized repair center. Remember this story the next time you see a PowerBook with a jammed latch and feel the urge to try repairing it yourself.—*IS*

**DAVE REMOVED MANY TORX SCREWS, as you see in this image. Don't try this at home. Ever.**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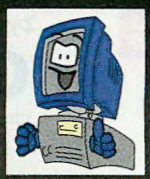

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# scrapbook

It's no *60 Minutes*, but it *is* an in-depth look.

## A Gander at the G4

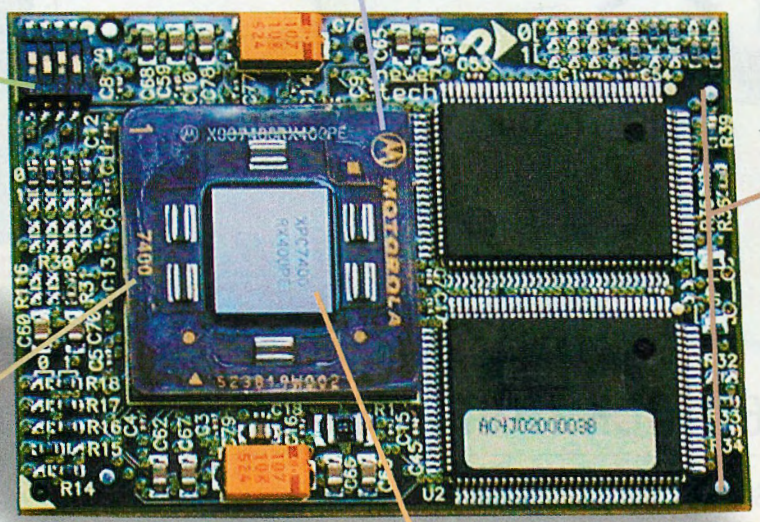
*by David Reynolds*

G4s are all the rage among Mac digerati who have some green to spare, so we thought we'd take a look at this little chip to see what makes it *so* special.

**Seal of Approval**
You see it here—a circled *M* that looks like something out of the '50s means that Motorola gave its seal of approval to this particular G4.

**Jumpin' Jumpers**
These four switches determine the bus speed multiplier. Simply put, the CPU has to operate at a multiple of the bus speed, so a system with a 66MHz bus would have to operate at some multiple of 66, such as 300MHz (a 4.5 multiplier).

**Down the Backside**
One of the features that makes the G3 and G4 chips so fast is the backside cache, a chunk of specialized high-speed memory that connects directly to the processor. This memory makes sure the chip always has something to do.



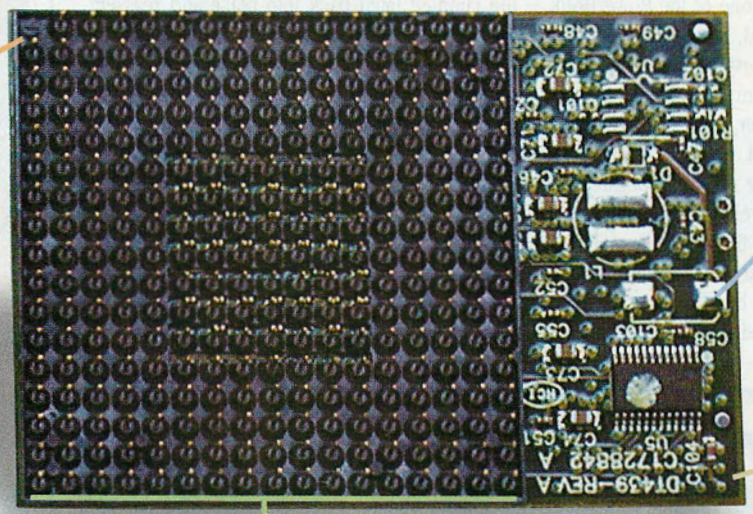

PHOTOGRAPHS BY DAVID REYNOLDS

**The Given Name**
The G4 chip is also known as the PowerPC 7400, just as the G3 was the PowerPC 750. G4 just *rolls* off the tongue in comparison. Here the chip's more boring moniker is silk-screened onto the daughterboard.

**Brains!**
The chip itself: The G4 is situated under this metallic square. Heat generated from the chip goes out through the square and into the heat sink, which sits on top of the chip.

**Something's Missing**
Zero insertion force (ZIF) chips typically have one pin missing so that you can't insert them the wrong way. This keeps you from doing some serious damage when you place one of these things.

**Silver Nugget**
It's solder. It holds components onto the circuit board.



**But We Wanted a Son**
The G4 processor sits on a daughtercard, a specialized circuit board containing the processor, the backside cache, a few jumpers, and control circuits.

**Tin Soldiers**
All of these pins connect the G4 to your Mac's motherboard. The pins plug into the socket, and away you go!

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No matter what your taste in tunes, you'll dig the new **CD-ROM ToolKit™ 4.0** from FWB Software. Now with full **MP3 Support**, our award winning CD-ROM driver gives you complete control over your music listening experience while sitting in front of your computer. Disco, rock, punk, or old junk—it all sounds better with **CDT Remote™**. And with our graphic **CDT Equalizer™**, you can fine tune the sound according to your personal listening preferences.

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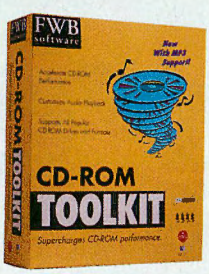


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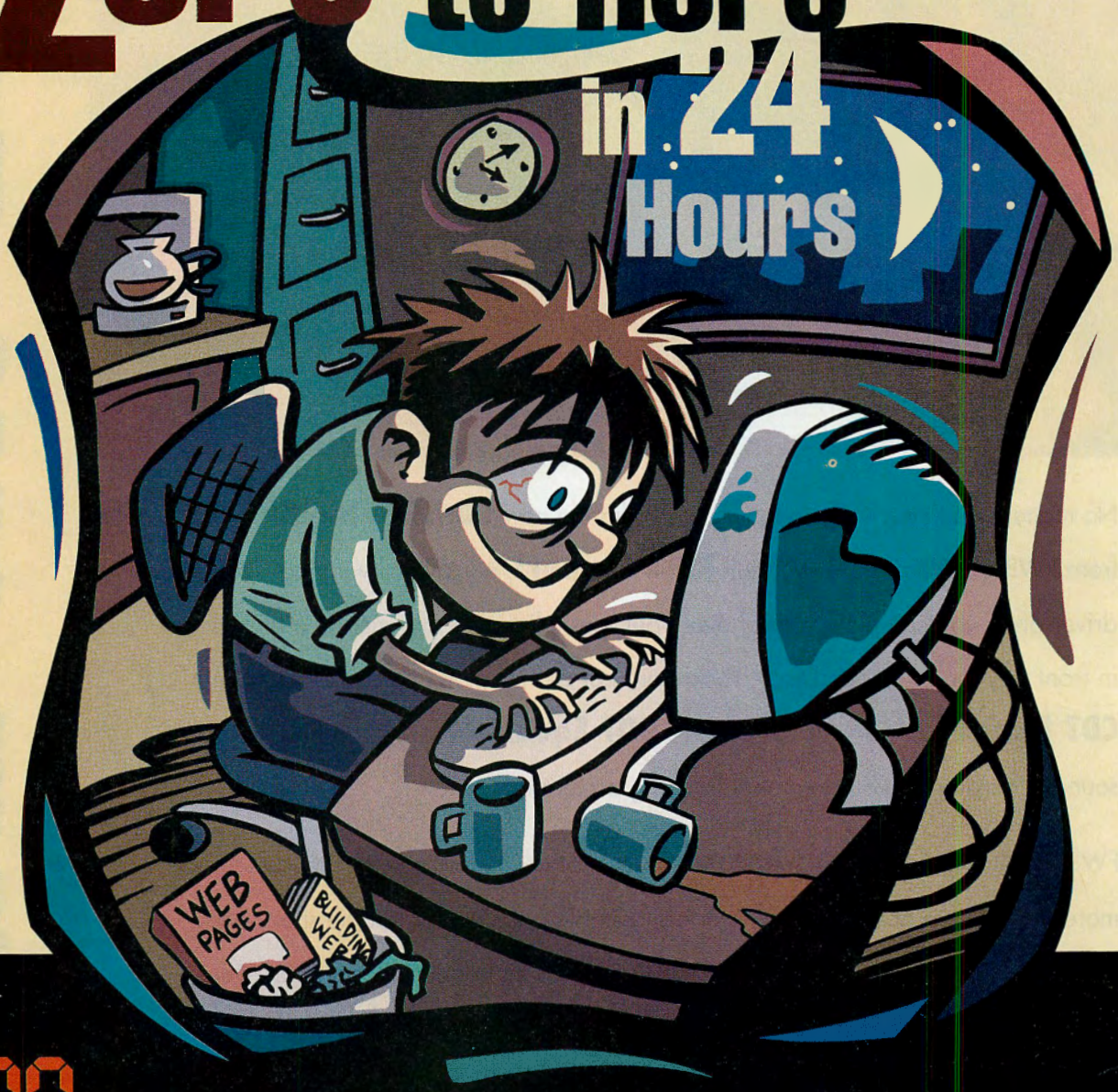


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## 24:00

by David Reynolds

So here's the story. You made it to work early today—an accomplishment in itself—and you see the dreaded sticky note on the center of your monitor. Yes, it's every bit as bad as you imagined—it's from your boss, who makes it in even earlier than you do, and it has just two words written on it. No, not "You're fired," although that might be a relief. Instead, it says "See me" in your boss's easily misread script.

You still have time for a cup of coffee before going into the lion's den, so you stop by the BrewMaster on your way and pick up a cup of joe. As you're about to discover, that's a good move—you'll need it. Upon entering the mahogany-lined office, you hear words you never expected, and when their meaning sinks in, so does a sense of dread: "We need our Web site up by tomorrow at 9 a.m., and you've been selected to put it together." Ulp.

And what's been done so far? Well, the domain name's registered through Register .com (http://www.register.com) and it has trickled into the DNS—so when your boss types in the URL tomorrow at 9:01 a.m., the browser will point to the right IP address, whether or not there's a Web site to display. Otherwise, nothing's been done. *Nothing.*

"No problem," you say, contemplating how you're going to fake your own death. But on your way back to your cubicle, a funny thing happens. Your conscience kicks in—at least that's what you've taken to calling that little voice you keep hearing in your head—and says that you have a duty to perform. Although you only have 24 hours, you *will* get that Web site up and running, and it'll kick butt.

# Lay the Foundation 22:00

The morning hours go easily, but that's no surprise. Planning is one of the best parts of creating a Web site, but architecture can make or break a site. If you make a mistake here, you'll face a mountain of trouble: Visitors will get lost on your site and never return; adding or removing sections will turn into an ordeal; and information architecture's blue furies will visit your email in-box, leaving an unpleasant residue of hate mail.

## PHASE ONE: Start at the Top

Before you even think about building HTML files or snazzy Web graphics, you'd better know what your site should do, who's going to visit it, and what features it will have. Write down the answers to each of these items, show them to someone else, get some opinions, and then revisit them. When you're satisfied, these answers will serve as a guide for your site's design.

• **What are your site's goals?** What do you want it to do? What is it for? Once you answer this question, the rest will fall into place more easily. Be as specific as possible.

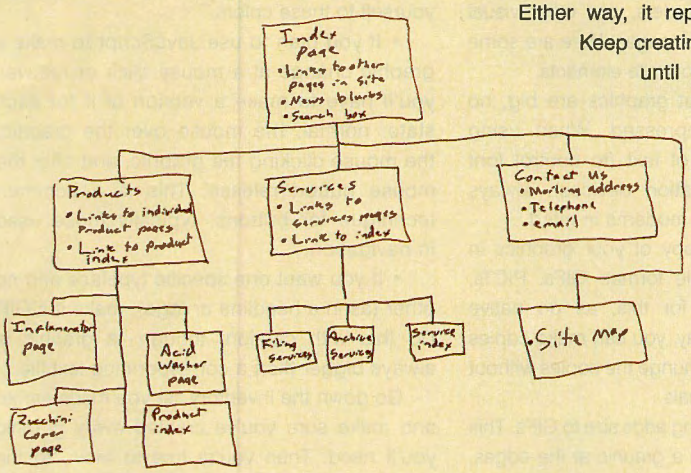
• **Who will be visiting your site?** Who are they? What do they want? Always know your audience and anticipate its diverse needs. Some users will want to browse, others will be looking for specific information. Describe three or four of the most common kinds of folks you expect your site to draw, and pay attention to what they need.

• **What features will your site have?** Make a list of your Web site's features. You'll likely want an index page and some content, but you may also want high-end functions such as a site map and a search engine. List *all* of the features you expect your site to provide—this list must mesh well with your targeted audience's needs.

• **What are similar sites doing?** Know your competition. Visit some similar sites, see what you like about them, and go them one better.

## PHASE TWO: Sketch Out Your Site Design

Now it's time to get the pencil and paper out. You're going to create a block diagram of your site that'll look something like a genealogy diagram—mostly squares with lines connecting them. At the top will be the home page, below that will be the areas to which it links. For some sites, this second level will be just a couple of squares; for others, it may be eight or nine. Either way, it represents your content. Keep creating blocks for each level until you've covered everything that's happening on your Web site.




By sketching out a block diagram of your Web site, you'll accomplish two things: First, you'll optimize your site's content; second, you'll complete a rudimentary site map-a valuable navigation aid.

## PHASE THREE Make an Inventory List

Now that you have a rough idea of what your site will look like (from a conceptual standpoint), list all the items you'll need to assemble it. This list should fit nicely into these two categories (but feel free to make your own):

• **Content inventory**—All of the articles and pictures that actually appear as part of the content. Put these under the various areas you created in phase two.

• **Collateral inventory**—All of the items that aren't content but will appear on the site, such as a logo, navigation graphics, backgrounds, and so on.

Congratulations! You now have a blueprint and a parts list. One final note: As you're going through these steps, think about how your visitors will navigate your site. It's often a good idea to provide several ways to get to the same page, such as a navigation bar, a search engine, or a site map.

## Must-Visit Sites

**Web Developer's Journal**
**http://www.webdeveloper.com**
Part of the vast Internet.com site (man, what a snag on a domain name) the Web Developer's Journal has stylish content with a genuine personality—a refreshing change from the plain-vanilla sites out there that suffer from being too inoffensive. Plus the site features some killer content, covering everything from beginner topics to propeller-head material.

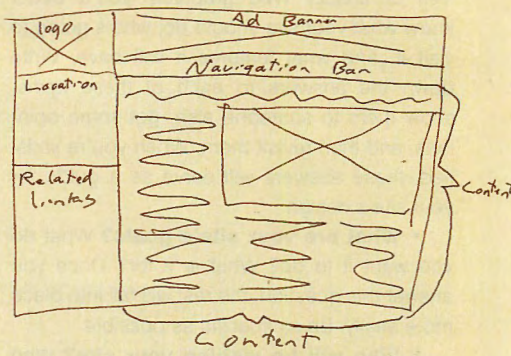
**FreeCode**
**http://www.freecode.com**
A site for the more hard-core among the Webmasterly, FreeCode features lots of—you guessed it— free Perl scripts, C/C++ code, JavaScript, and that *other* scripting language, Visual Basic. While FreeCode is short on reference material, it's way long on useful downloadable goodies. The site does feature an integrated discussion board for commentary and help.

# Building the Skeleton 16:00

Now that your site has a backbone, it's time to build the skeleton. We'll start with the graphics. Dig out the list you made in phase three of laying the foundation—you'll need it now. But before you fire up your graphics program, and haul out the pencil and paper again—you'll need that, too.

## PHASE ONE: Create a Page Grid

One key to a good Web site is consistent design, and at the heart of this is a common layout grid shared between pages. Get out a pencil and paper and sketch a grid showing how your pages will appear. Make places for the collateral elements you listed earlier (such as the logo and navigation graphics), and label each major item. Remember that, unlike traditional layouts for printed publications, Web page layout is not precise. A couple rules of thumb: Avoid multiple columns of text such as those you'd see in a newspaper; stick to a square grid unless you have no other choice (curves are very difficult to integrate into a Web page); and pay particular attention to navigation—navigation bars should appear in easily accessible places. You may want to create two or three grids (one for the index page and one or two for interior pages), but don't go hog wild, cowboy. The whole point of a grid is to provide consistency.




## PHASE TWO: Start Building Elements

Here's where we start getting graphic. Launch your favorite image editor (GraphicConverter, Photoshop, or just about any other program capable of creating GIFs and JPEGs), and start building the buttons, borders, and other visual goodies to pretty up your pages. Here are some guidelines for creating your site elements.

- Keep in mind that graphics are big, no matter how well compressed. When using graphics in the place of text (to control font selection or as navigation devices), always keep users with slower modems in mind.
- Save a master copy of your graphics in some nondestructive file format: GIFs, PICTs, and TIFFs work well for this, as do native Photoshop files. This way, you can make copies from your masters and munge the copies without fear of losing your originals.
- Know that antialiasing adds size to GIFs. This technique, which blends a graphic at the edges, adds more colors and results in heftier file sizes.
- Use the color-safe palette—most image editors (including GraphicConverter) can keep graphics constrained to the *Web-safe* palette: 216 colors that display without dithering on both Mac and PC. If users of both platforms will view your site (and odds are they will), constrain yourself to these colors.
- If you plan to use JavaScript to make a graphic change at a mouse click or rollover, you'll have to make a version of it for each state: normal, the mouse over the graphic, the mouse clicking the graphic, and after the mouse button release. This is a common technique for buttons, typically those used in navigation.
- If you want one specific typeface and no other (as in a headline or logo), make it a GIF. Do this with caution, though—a graphic is always bigger than a corresponding text file.

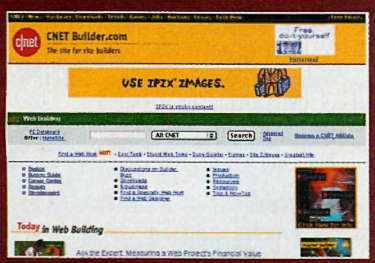
Go down the inventory list you made earlier and make sure you've created every graphic you'll need. Then you're free to move to the next step.

## PHASE THREE: Optimize Your Graphics

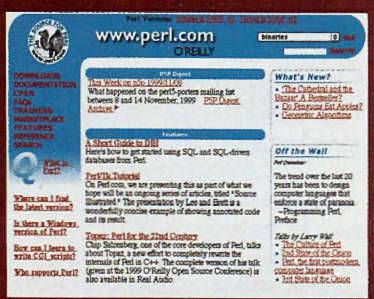
Now that you have master graphics created for your site, it's time to create the Web versions of them—either GIFs or JPEGs. Open each graphic and save it to a new location as a GIF or JPEG depending on the type of image. (Read ahead for when to use each type).

Remember that the majority of folks cruising the Web are still using 56-Kbps or slower modems. It's vital that you make everything on your site small enough to pass through that small pipeline quickly. Otherwise, you'll need inhumanly good content to keep folks coming back to a site that takes forever to download. There is a tradeoff, however; by making image files smaller, you sacrifice image quality because you lose either some of the data (in the case of JPEGs) or some of the colors (in the case of GIFs). You'll have to walk the line between size and image quality when optimizing your graphics. Make them small enough for

**Builder.com**
**http://www.builder.com**
CNet's Builder.com features expert advice for Webmasters, critiques, and helpful downloads—all wrapped up in an easy-to-navigate site. Builder.com dishes out advice on topics including Web-page building and careers.

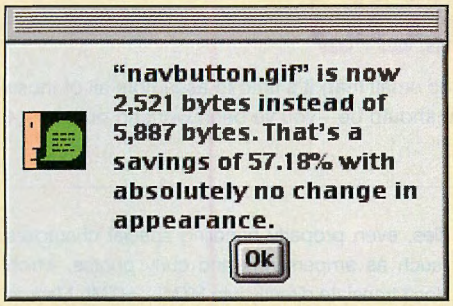



**Perl.com**
**http://www.perl.com**
Specific to Perl, this site is packed with material and downloads that will have you implementing great Perl scripts on your Web site in seconds flat. This site features *everything* you want to know about Perl—whether it's the Mac, Unix, or PC variety.




**DO YOU NEED TO KNOW HTML?**
If you want to make a good Web site, you'll need to learn HMTL. Graphical Web creation applications have gotten much better, but they're still not up to the level of a human being who knows how to code. However, it's not as tough as you might think.

To help you out, we've included a program called HTML Tag Companion on our CD. This AppleGuide file will work with just about any application, and it has exhaustive information about HTML tags. If that's not your cup of tea, you can check out some of the 15 sites we've listed in this article—many have excellent HTML learning materials and cheat sheets.




quick download, but not so small that the site looks unprofessional.

There are two diverging paths when it comes to making your graphics tiny—one for JPEGs and one for GIFs. Here are some quick tips on optimizing graphics for each format.

**JPEGs**

• You can compress JPEGs to lots of different sizes, but the smaller the final file, the worse the image quality. Try several different compressions of the same graphic to see what's acceptable.

• Try blurring your image a bit to see if that reduces file size. In some cases, a sharp image is larger than a slightly blurred image.

**GIFs**

• Reduce GIFs to as few colors as possible. Each color added to a GIF file adds to its size.

• If you have to save a photo as a GIF, blur it slightly to see if that reduces the file size.

• Try saving a gray-scale photo as a GIF instead of a JPEG. In some cases the resulting GIF turns out smaller. Go figure.

• Run your GIFs through A Smaller GIF, a shareware utility on The Disc. It can squeeze the most out of your GIFs, making your files as compact as possible.

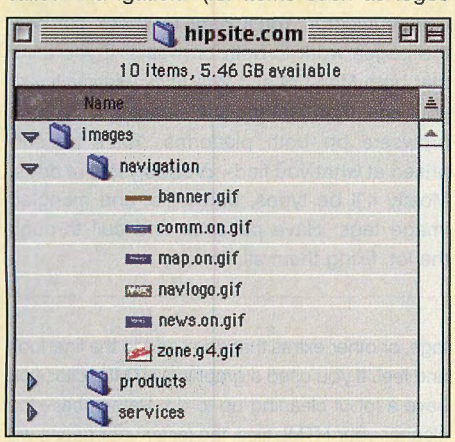
**A SMALLER GIF will wring the smallest possible file size out of your GIFs, sometimes trimming them more than you thought possible.**

Some commercial applications do a great job of optimizing your Web graphics, both JPEGs and GIFs. We've included demos of two of these, Adobe ImageReady and Macromedia Fireworks on The Disc. These applications let you see the effects of compression on your graphics before you save them. This way, you can make an informed choice between file size and image quality.

One other trick makes graphics appear to load faster in a browser. Slice large graphics into smaller sections and then, when it comes time to insert the graphic into a Web page, use a table to lay the graphic out so that the edges of the slices touch. Many Web applications will do this slicing trick for you, and it lets you be more creative in terms of layout, too.

## PHASE FOUR: Organize Graphics in a Folder

Once you've saved your site's graphics in Web friendly formats, you'll need to organize them. Create a folder on your Mac and rename it to your Web site's name. This will be the home directory for your entire site. Within that folder, create another folder called "Images" for your graphics. Because you just *know* that your site will grow tremendously, make another folder inside the Images folder called "Navigation" (for items such as logos and navigation bars). Move the Web-friendly versions of the files you just made into this folder. Congratulations—you're ready to start building pages.




**THIS FOLDER STARTS life mostly empty, but as your site grows, so will the folder's contents. Be wise—back up your folder in a couple of places.**

## JPEG versus GIF

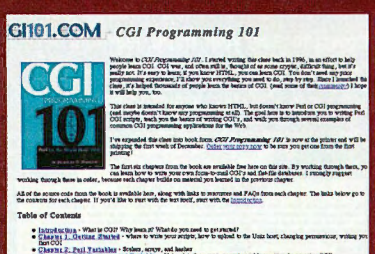
**When it comes to putting graphics on your Web page, you have two choices: GIF or JPEG. Each has different strengths and weaknesses, making them perfect complements. So how do you know when to use JPEG and when to turn to GIF? Use our handy table to find out.**

| | |
|---|---|
| **The good stuff** Can heavily compress images, making photos very small. | **The good stuff** Can be animated; works very well with images containing just a few colors. |
| **The bad stuff** Loses image quality with compression; not good for images with few colors. | **The bad stuff** Limited to 256 colors—Unisys holds a patent on it, and the company is tough about enforcing that limit. |
| **What it's good for** Great for photos or images with lots of colors. | **What it's good for** Great for images with a single color or just a few colors, such as logos or navigation graphics. |

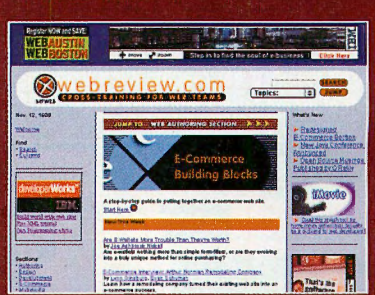


**Webmonkey**
**http://www.webmonkey.com**
A part of Hotwired, Webmonkey offers fantastic content about creating and maintaining a great Web site. It offers lots of good articles and a selection of utilities, too. The site also includes great basic reference sections for those Web-safe colors and a JavaScript code library.

**CGI101.com**
**http://www.cgi101.com/class**
This online tutorial covers the ins and outs of CGI while promising to keep the subject at the same level as understanding HTML. The online class has turned into a book, however, and you'll only get the first six chapters—to get the rest, you'll have to buy the book.



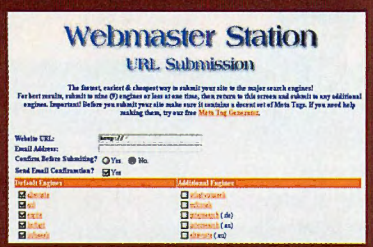

**Webreview.com**
**http://webreview.com**
Loaded with articles covering just about everything from setting up your own ecommerce site to integrating Perl scripts as CGIs, Webreview.com is a deep site filled with tons of good reference materials.



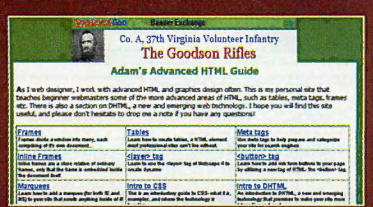
# Building Pages 10:00

Now that you've done the underlying work (no small feat) it's time to assemble all of those pieces into a Web site. Are you ready? You should be—you've been working on it for 14 hours now.

**Webmaster Station**
**http://www.exeat.com**
This homey site contains some truly useful tools for Webmasters, including a metatag generator, which makes search engines list your site properly; a URL Submission utility, which submits your URL to as many as 18 search engines; and a JavaScript maker, which painlessly creates the code for JavaScript-generated alert boxes, new windows, and prompts. It's cool and easy to use.




**Adam's Advanced HTML Guide**
**http://www.geocities.com/SiliconValley/Orchard/5212**
Okay, so Geocities hosts it, but Adam's Advanced HTML Guide has great information about HTML features. Don't expect to start your HTML learning here; however, if you want to go beyond the  status, browse this way.



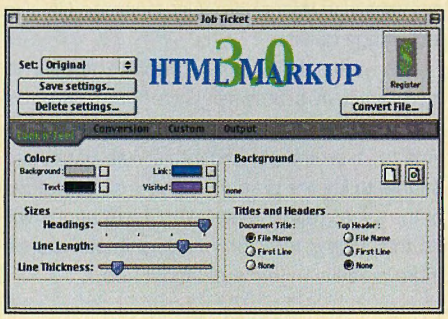

**Wacky HTML**
**http://www.webdevelopersjournal.com/wacky**
This is a subsite within the Web Developer's Journal site that's *so* cool, we had to mention it separately. If you're looking to do stupid HTML tricks (create wiggling type, color fades, and so on), you've come to the right place. The site itself makes great reading even if you're not planning to use any of its tips.

## PHASE ONE: Prep the Content

It's finally time to build your site. But before you start spewing HTML pages all over, you'll need to get your content together, and that means preparing more text and graphics.

### For Text

You should have your prewritten articles (and we hope you have a lot of them, or building a Web site is going to take *much* longer than 24 hours) saved as plain text files. To get them ready for the Web, we've included a wonderful utility called HTML Markup 3.0, which batch-processes text files, even properly handling special characters (such as ampersands and curly quotes, which don't translate directly into HTML). HTML Markup 3.0 can also handle URLs, converting them into actual hyperlinks. Create more folders inside your Images folder, one for each of the content areas you created in your block diagram. Although you won't put the raw text files there, you will need the folders when you start saving HTML files.




**HTML MARKUP will help you get text files ready for the Web in a hurry. It batch-processes files, preserves special characters, and even adds headers and footers to the documents.**

### For Graphics

Follow our earlier advice regarding GIFs versus JPEGs. Save the optimized graphics in the images folder you created earlier, creating subfolders within it for each content area you set up in your block diagram—remember the pencil sketch that looked like a family tree? This step is very important, because when you start building pages the location of these graphics must be final.

## PHASE TWO: Making HTML

Now it's time to dive in and create real Web pages. You have a choice to make here. You can either go it the real geek way and use a text editor to build your pages, or you can turn to a graphical Web page editor. Our advice? Use a combination. We've included Freeway 1.02 (a fine graphical Web page editor) on The Disc. Turn to Freeway to set up your initial Web pages.

Start with the index page and work down the architectural diagram you made in the first part of this process, creating pages as you go. Consider creating a stationery file that contains all the elements common to each Web page (the collateral stuff such as the navigation bar and the logo), then making new pages from this. Here's where a graphic layout tool makes tons of sense—it's a *lot* easier to do layout in one of these applications than it is to hand-code a huge table.

At this point, construction should be as easy as importing graphics and text, placing them in the desired locations, and saving the resulting HTML files in the folders you created earlier. When you make links in your files, it's important to save your HTML files in these folders—that's where the links will point when you upload your site.

After you've finished creating your pages, test them out by dropping the HTML files on both Internet Explorer and Netscape Communicator. You'll want to check out how the pages work in both browsers. If you think that both Mac OS and Windows users will visit your site, then test the site's pages using both browsers on both platforms. You'll be surprised at what you find—probably lots of bugs. Mostly it'll be typos, bad links, and mangled image tags. Have patience and cull through the lot, fixing them all.

## PHASE THREE: Optimize & Organize

Now that you have your Web pages, it's time to clean out the extraneous code left in the HTML files. These can be certain metatags, optional tags, or other extras that don't add to the final look and feel. If you used a graphical HTML editor, you have a lot of cleaning up to do. Remember—the cleaner your HTML files, the faster your pages will download and the happier your visitors will be.

# Integrating CGIs 3:00

We are about to take a step into the realm of the advanced Webmaster—the realm of CGIs. CGI stands for Common Gateway Interface, which means almost nothing, except that it's a way to get your Web site to do some very cool stuff. In the interest of space (this is a vast topic), we'll limit ourselves to implementing a simple search engine using a Perl script. Many Web servers use Perl as a way of manipulating text and files. It's also tremendously helpful as a programming language. Most Web servers have a version of Perl built in. Incidentally, a CGI can be any program that can run on the Web server—whether it's a Perl script, a compiled C application, or even an AppleScript application.

## PHASE ONE: Setting the Stage

Before you do anything, talk to the owner of your Web server to find out if you can implement and use Perl CGIs on your Web site. Some ISPs are just fine with this, provided you let them see the script you're running. Others will even have CGIs premade for you. Still others won't want foreign CGIs running on their site. It's important to get the permission of the server's owner before implementing a CGI—you won't be able to do it without the go-ahead.

Once that's done, choose the Perl script you want. One great example is a search engine—everyone needs one of those. There's a simple example search script available at Matt's Script Archive (http://www.worldwidemart.com/scripts). Download your Perl script and any related read-me files, then open the script and files in a text editor. The read-me file should have instructions for using the script on your site. Usually you only have to change a few things in the script to make it work. You may have to alter the first line of the script—it's the location of the Perl program on the Web server. Ask the server administrator for that information.

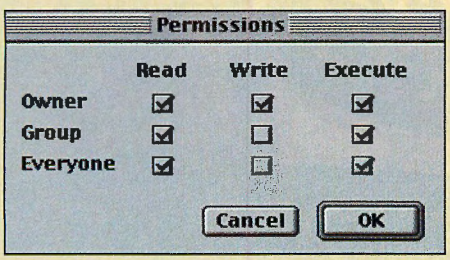
## PHASE TWO: Creating the Form

Using an HTML editor (either a text or a visual page editor), create a form with two elements: a text box and a submit button. You can embed this form in an existing HTML page (perhaps your index page), or you can create a separate search page using the template you already developed. The search engine from Matt's Script Archive has a prebuilt search page ready to download, so you can study that for the HTML syntax or just use its HTML directly. The important thing here is that the *action=""* portion of the form must point to the location of your search script. Here's an example from Matt's Script Archive (taken from the sample HTML file downloaded with Simple Search).

```
<form method=POST
action="http://www.mysite.com/cgi-
bin/search.cgi">
<center><table border>
<tr>
<th>Text to Search For: </th><th><input
type=text name="terms" size=40><br></th>
</tr><tr>
<th>Boolean: <select name="boolean">
<option>AND
<option>OR
</select> </th> <th>Case <select
name="case">
<option>Insensitive
<option>Sensitive
</select><br></th>
</tr><tr>
<th colspan=2><input type=submit
value="Search!"> <input
type=reset><br></th>
```

## PHASE THREE: Tying It All Together

To get your search engine up and running, you'll need to upload it to your Web server and set its permissions, which simply means determining who has permission to manipulate the search engine's files. To do that, upload the Perl script to the cgi-bin directory of your Web server (ask your server administrator exactly where this is), then change the file's permissions to 755. This security feature sets the script so that folks can read and run it but can't change it. To change the file's permission, use Anarchie (or another FTP client) to log on to your Web server, move to the directory where you uploaded the CGI, select it, and select Set Permissions from the Remote menu. Make sure the Owner is allowed to Read, Write, and Execute, but the Group and Everyone selections can only Read and Execute. When you upload your site, you should be able to search engine.




**TO MAKE SURE THAT the proper people can use but can't modify your search engine, set the permissions as shown.**



**W3C**
**http://www.w3.org**
Okay, the World Wide Web Consortium's Web site is pretty boring, but you should make at least *one* trip here. After all, this august body sets the standards for the Web and has the bottom line on tags for just about everything—including HTML, XML, and Cascading Style Sheets. If you want to know how to make your Web site work properly, this should be your first stop.

W3C WORLD WIDE WEB consortium

*Leading the Web to its Full Potential...*

**W3C Issues XSLT and XPath Recommendations**

The World Wide Web Consortium announces two new Recommendations - XSL Transformations (XSLT) and XML Path Language (XPath) - that will enable the transformation and styled presentation of XML documents. "Anyone using XML can now take advantage of XSLT, a powerful new tool for manipulating, converting and styling documents, and XPath, a simple way of referring to parts of an XML document." said Tim Berners-Lee, W3C Director. "Together, XSLT and XPath strike a fine balance between simplicity of use and underlying power."

(Press Release, Testimonials)

Other XSLT/XPath resources from W3C:

- XSL Activity Home page
- XML Activity Home page
- Style Activity Home page
- When to Use XSL

Other news:

**HTML Writers Guild**
**http://www.hwg.org**
This nonprofit site (no advertising banners—how cool!) is powered by members and a board of directors, and it hosts online classes, lists, reference materials, and much more—all devoted to writing great HTML. You should have no problem finding tons of stuff here to implement on your Web site.

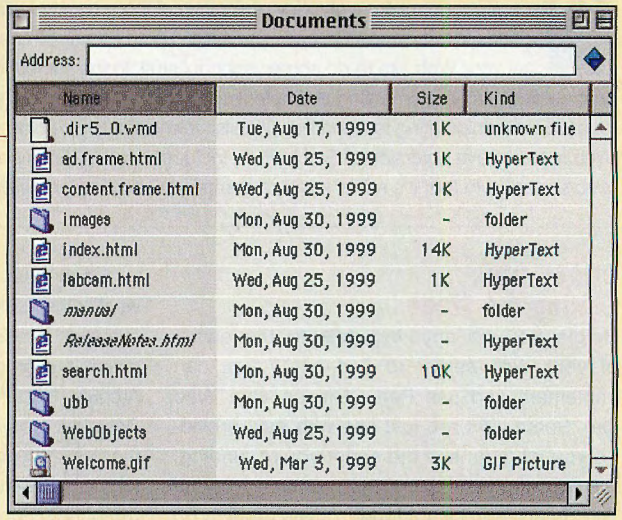
**WebReference.com**
**http://www.webreference.com**
Another site devoted to helping Web masters create great Web sites, WebReference.com features interesting articles on JavaScript, Perl scripts for CGIs, graphics, Dynamic HTML, and other stuff that aspiring Webmasters should know.

**Matt's Script Archive**
**http://www.worldwidemart.com/scripts**
Home to a ton of free Perl scripts for CGI, Matt's Script Archive will have you turning your Web site into a thing of functional beauty in no time. Plus it features links to other free Perl scripts, some C++ CGI programs (if you *really* want to dive deep), and help installing and configuring scripts.

**About.com**
**http://webdesign.about.com**
Formerly known as The Mining Company, About.com sports a comprehensive site for Webmasters that includes articles, links, and free code. It even has the scoop on pay and salary, if you happen to find yourself employed in Web work.

# Making It Live 1:00

The moment of truth has arrived. You're about to go live—with time to spare, we hope.




**IT LOOKS LIKE A HODGE-PODGE once you upload it, but that's how Anarchie views your site.**

## PHASE ONE: Upload the Site and Test, Test, Test

Although you've been testing the site as you've gone along (you have, haven't you?), it's time to upload it and try it remotely. But since you're not ready to go public yet, rename your index page (which should have the name index.html) to, say, test.html. Next, upload the site. To do this, log on to your Web server with an FTP client such as Anarchy and upload your site to the directory where Web sites live (usually the folder titled public_html or html). Ask your Web server administrator where you should put your pages.

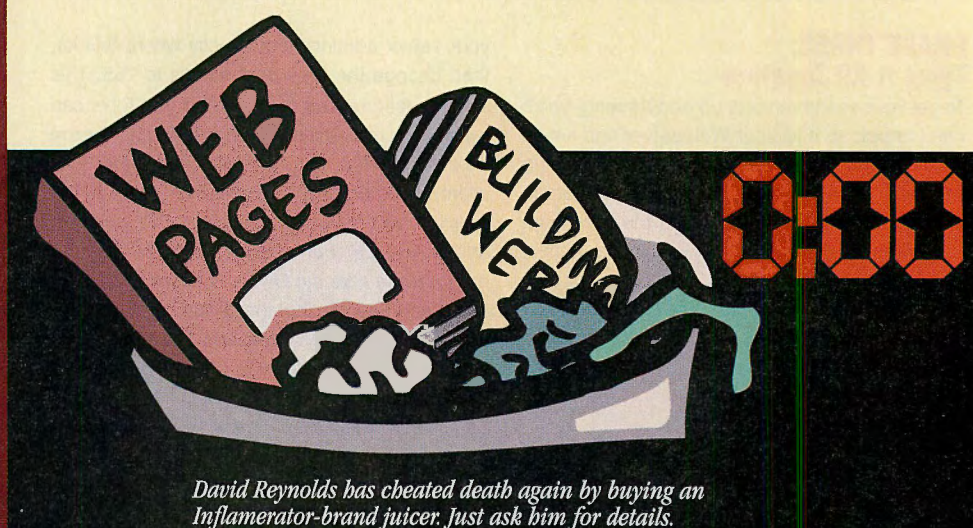
Once you've uploaded your pages, check out your site over the Internet. Type your URL and add test.html to the end of it (http://www.mysite.com/test.html). Your site should come alive. If you're lucky, it'll be bug free. Yeah, right. After you're done squashing bugs, then you can cheer.

## PHASE TWO: Alert the Search Engines

Just because you built it doesn't necessarily mean they'll come. That's why you need to register your site with search engines. To do this, include the proper metatags in your index page (you can have these generated for you by going to Webmaster Station at http://www.exeat.com/metatags/meta.shtml). Then just copy and paste the generated text into the head portion of your index page's HTML file. Visit Webmaster Station's URL submission page (http://www.exeat.com/submit/submit.shtml) to submit your site to any of 18 search engines and guarantee browsers will find you.

## PHASE THREE: Flip the Switch

Everything's ready. Rename your index page to index.html, and your site should be ready to go. Just type the URL into your browser (http://www.mysite.com), press Return, and you should go to your own Web site. Congratulations! You get to keep your job...for now.




*David Reynolds has cheated death again by buying an Inflamerator-brand juicer. Just ask him for details.*

# IT'S NOT JUST A NEW WORLD, IT'S A NEW STANDARD.

"★★★★★"*

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"98%"*

(Highest review score ever awarded)

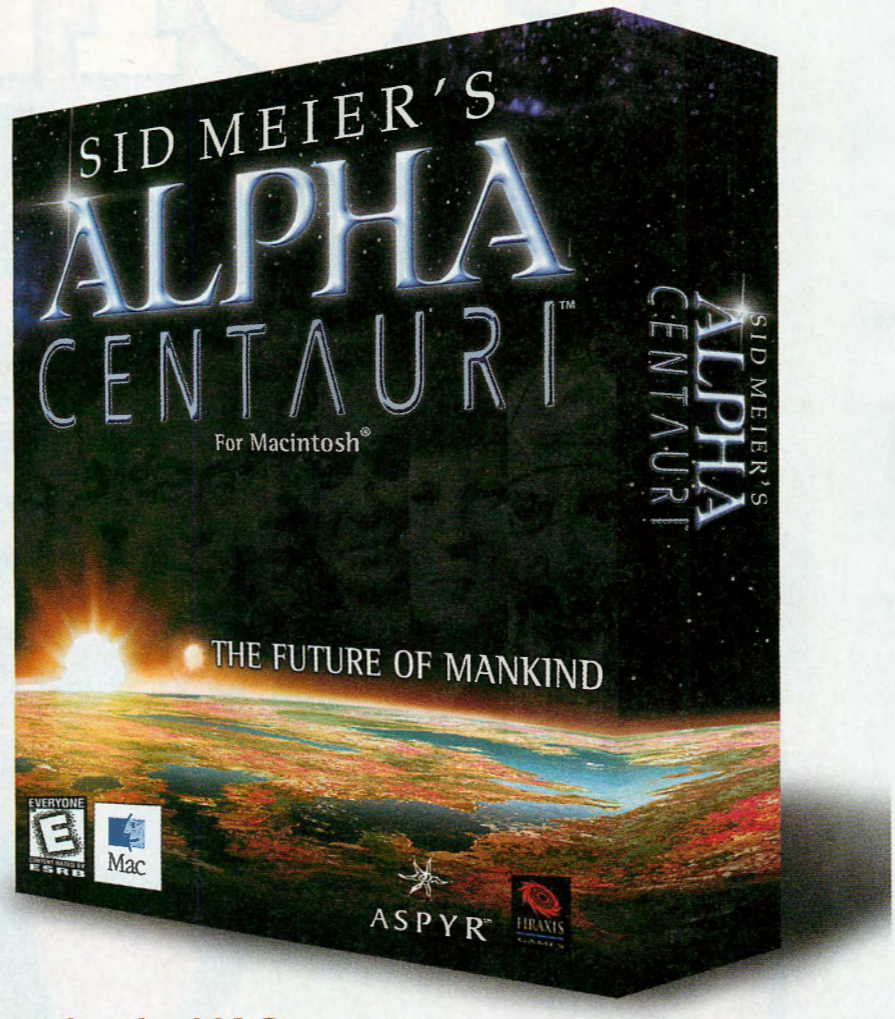
-PC Gamer

"Alpha Centauri is unmistakably the rightful heir to the Civilization throne. It's also the best strategy game ever made."*

- PC Gamer

"Meier has again set the gold standard for strategy."*

- Newsweek

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# FIGH CORRUP

illustrations by Peter Ferguson

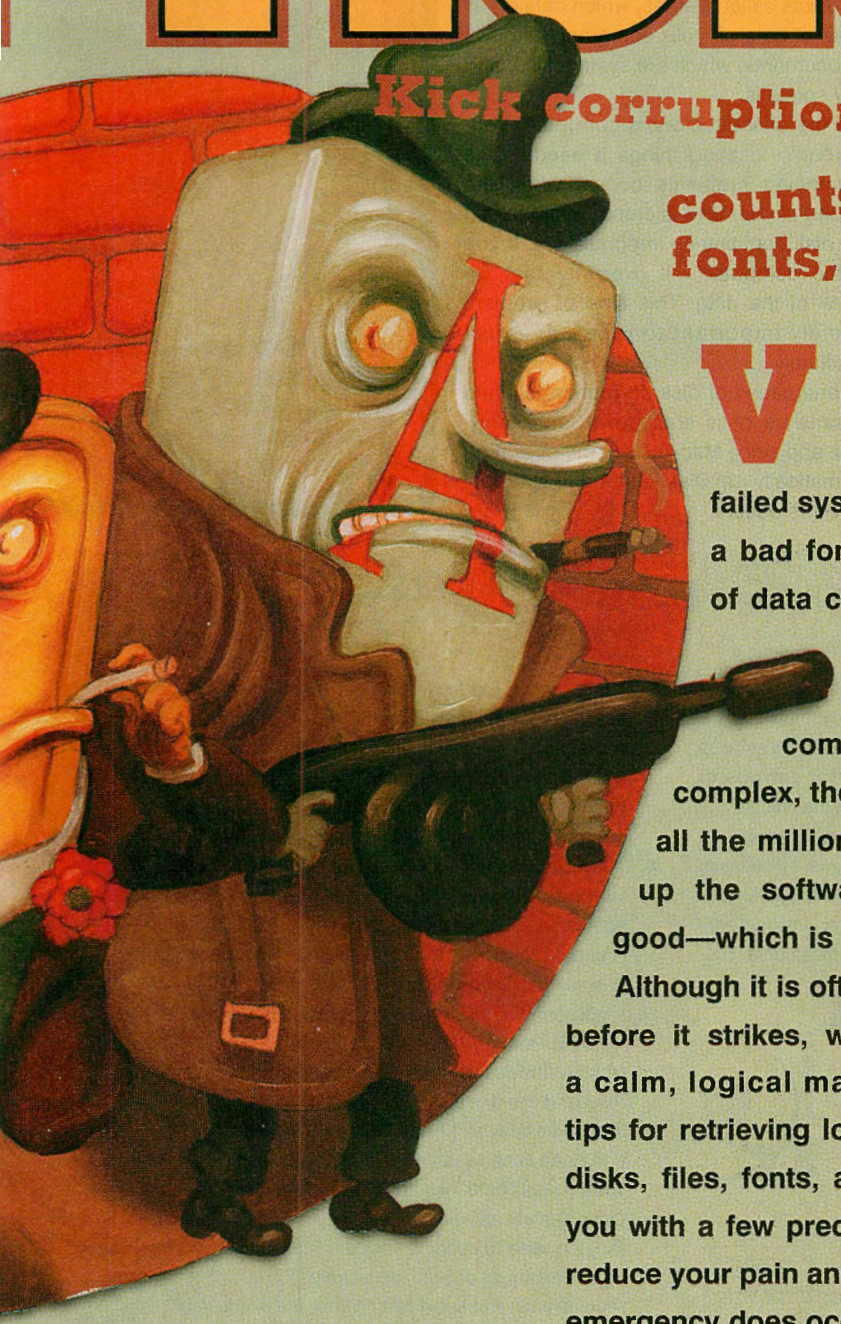
## Tools of Justice

To fight corruption, you can't fight fair. Download the following tools from The Disc for the ed you'll need.

- TechTool 1.1.9
- Data Rescue 2.1.1
- SimpleBackup 1.6
- BBEdit 5.1.1 Demo
- Text Cleaner Lite 1.6
- FontAgent 8 Demo
- Disk Charmer 3.1.5

# TING PTION

by Buz Zoller



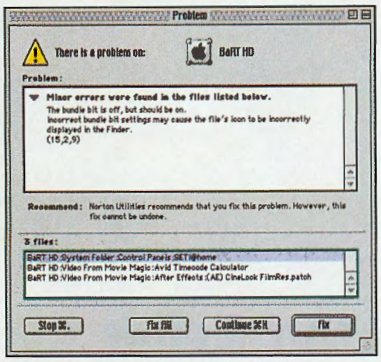
## Kick corruption where it counts—your disk, files, fonts, and preferences!

Victims of corruption, unite! Take back the Mac! If you've ever been on the receiving end of a failed system startup, a lost document, or a bad font, you've witnessed the effects of data corruption first hand. We can all feel your pain. In fact, most of us probably already have. As computers get increasingly more complex, the likelihood of a misplaced bit in all the millions of ones and zeros that make up the software running your hardware is good—which is very bad news.

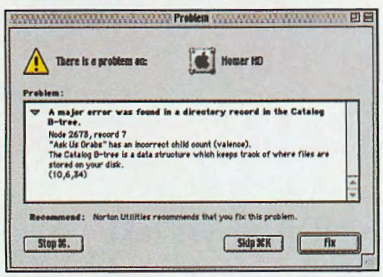
Although it is often impossible to stop corruption before it strikes, we can prepare you to react in a calm, logical manner when it does. We've got tips for retrieving lost work and repairing corrupted disks, files, fonts, and preferences. We'll even arm you with a few predisaster moves that we hope will reduce your pain and suffering in the event that a real emergency does occur.

# CORRUPT DISKS

Disk corruption is the type of corruption you're most likely to face as you work with your Mac on a day-to-day basis. This is the kind of corruption utilities such as Apple's Disk First Aid or Norton's Disk Doctor can usually fix. To understand how corruption occurs, you must visualize how a disk drive works. A good analogy is a regular old book. A book has a table of contents, chapters, and an index. Disk drives work the same way. In order for your computer and operating system to work, they must know where to find your data. The drive maintains a table of contents called the master directory block so that it can locate all of the files on the drive. This master directory is broken down into indexes called b-trees, which catalog all the different types of data on your computer. It knows which files are documents, which are system files, and where the empty space is.




NORTON UTILITIES will politely ask permission to fix what's wrong. By all means, fix it!




THE CATALOG B-TREE is the part of your disk that keeps track of where all your files belong.

When part of the disk directory is corrupted, your computer has trouble locating things it needs. One of the most damaging problems occurs when the directory thinks part of your disk is empty, when in fact that part of your disk contains an important file. If you save an item, the computer will overwrite that file and you'll lose all of the data. This type of problem makes it extremely important to repair any disk corruption immediately.

The number one cause of disk corruption is when your computer crashes or is shut down improperly. Apple knows this, and since Mac OS 8.5, the operating system has automatically run Disk First Aid at startup if either of these events occurs.

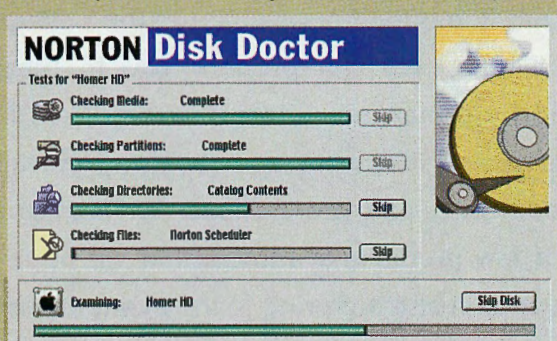
## Corrupt Disk Symptoms

**If you've been experiencing one or more of the following symptoms, you should immediately check your disk for corruption and repair it.**

1. Mysterious folders and files appear and disappear.
2. Finder errors appear when you're trying to open folders, particularly -192 errors—these are bad directory errors.
3. You get a "Cannot find" error when you can plainly see the item in the Finder.
4. You can't trash certain files and folders or you get odd errors when you try to empty the Trash. In fact, any odd Trash-related errors are almost always disk corruption problems.
5. A flashing question mark at startup means the system can't find the System Folder.

## Curing What Ails You

1. Back up all important data accessible to you before running any utility.
2. Run Apple's Disk First Aid—it may be a bit of a lightweight, but it can fix most minor corruption, and it tells you if it can't fix some problems. Boot from another disk, such as your system CD, when running Disk First Aid to make sure it works at its best.
3. If Disk First Aid can't repair your disk, try Norton Disk Doctor (800-441-7234, http://www.symantec.com), TechTool Pro (800-829-6227, http://www.micromat.com), or DiskWarrior (800-257-6381, http://www.alsoft.com) to see if they can fix the problem. All of these utilities can repair most common disk directory damage. However, even if they find errors and fix them, it's always a good idea to run the programs again to make sure your system comes up clean.
4. There are instances where the damage is so severe that no utility can repair it. In this case your only recourse is to reformat the drive. This is where having a current backup can turn a disaster into a mere inconvenience.
5. If you can't fix the damage, but the data is still available, try Data Rescue (800-903-4152, http://www.wildbits.com/rescue/index.html) to recover any data before you reformat the drive.
6. If all else fails and none of the utilities can fix your drive, it may be time to call in the experts. Companies such as Total Recall (800-743-0594, http://www.totalrecall.com) or Drive Savers (800-440-1904, http://www.drivesavers.com) may be able to recover lost data for you by examining the inner workings of your disk drive. Be aware that drive recovery services are not cheap, but if you really need that data back, they can prove invaluable.



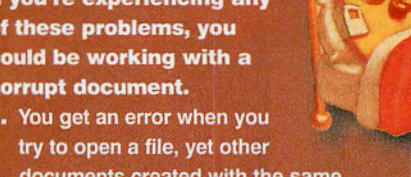

A UTILITY such as Norton Disk Doctor will give your drives the once-over!

# CORRUPT DOCUMENTS

## Document Corruption Symptoms

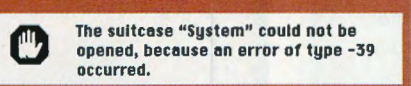
**If you're experiencing any of these problems, you could be working with a corrupt document.**

1. You get an error when you try to open a file, yet other documents created with the same program open without a hitch.
2. Any -199 error indicates resource corruption (a type of file corruption).




GOT A FLASHING QUESTION MARK at startup? That's a corrupt system suitcase for sure!

3. Any -39 error also indicates disk corruption.
4. You can open a document, but you can't save it.



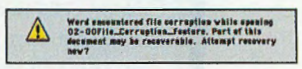

ANOTHER CORRUPT SYSTEM SUITCASE means another system error.

5. You get "Not enough memory" errors when opening specific documents—this is a strong sign, especially if other documents of similar size and content open correctly.

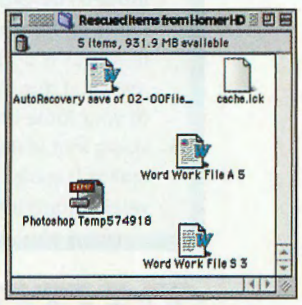
Of all possible corruption problems, a corrupt document is the most painful. Documents are the files you create—they can represent hours, weeks, or even years of work. Needless to say, the most important step in fighting document corruption is to maintain a current backup of important files. Take the time now, before document corruption strikes, to back up all your important documents to another media. Put them on a Zip disk or even burn a CD. If you have documents that change often, set up a schedule to back them up. You can even use Roland's SimpleBackup (free, http://www.acts.org/roland/thanks) to automate the process.

The most common cause of document corruption is a system crash. If the computer crashes while you are working on a document, odds are pretty good that it got damaged in the process. Many of today's applications are very talented at self-repair, opening corrupted documents to fix many problems. Unfortunately, they can't always repair everything so conveniently. Here's an example: When you open a document, it loads into RAM. Changes periodically get written back to the disk file. If an error occurs in the midst of recording these changes, the document may end up in an incomplete state. Basically, the computer no longer knows where the file starts and stops. This is an "End of file" error, and means the document is broken.

Many times document corruption arises from a bug or flaw in an application. If you suspect your software may be at fault, check with the company that wrote it. There may be an update to fix the problem. However, when document corruption strikes and you don't have a backup, take appropriate steps to minimize your losses, as described below.




**RECOVER? YES! Microsoft Word 98 sees that a file is corrupt and makes an attempt to repair it.**




**AFTER A CRASH, check the Trash for any rescued items. You just might be able to get some of the data back.**

## Curing What Ails You

1. As always, a recent backup of the file remedies all.
2. If your program has an import function, try importing the document. You should also try opening it from the file menu as opposed to just double-clicking the file.
3. Run a disk utility. Your corrupt document may really be a corrupt directory on the disk. However, be aware that these utilities are disk utilities, and they cannot fix bad file data.
4. Try opening the file in another program that can handle that file type. If it will open, try a *Save as*—and save it to a different location.
5. If you can open the document, attempt to copy and paste all of the data into a new file. This is probably the most common method of saving corrupt document data.
6. If you just need to get to the text, try opening it with BareBones Software's BBEdit (781-687-0700, http://www.barebones.com). This text editor can open just about anything. This is helpful if you just need text—you will lose all the formatting and end up with some extraneous gibberish. Bonus: You can get rid of that gibberish with Text Cleaner Lite (301-270-8445, http://www.studio405.com/textcleaner).
7. If you are using FileMaker Pro, it has a Recover command under the File menu that can recover data from a damaged FileMaker database.
8. If it is a proprietary data file, contact the developer of the application—sometimes it has special tools that can extract data from a corrupt document.
9. If the corrupt document is in QuarkXPress, try using Markztools, a file fixer for XPress (714-756-5100, http://www.markzware.com/data/product/markztools.html).
10. If the corrupt document is an Excel spreadsheet, try using Excel Recovery (888-699-8228, http://www.officerecovery.com/mac). This handy utility may be able to extract your spreadsheet data and put it into a fresh document.
11. Downloading files from the Internet can also produce corrupt downloads. Your best bet is to just trash them and redownload.
12. If a system crash has corrupted a Microsoft Word 98 document, look for the Word Work files. These files may contain the text you were just working on.

# CORRUPT FONTS

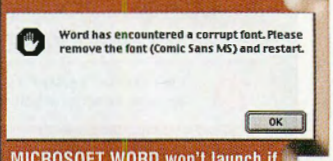
Oh, how we love our fonts! Not only do we love our fonts, we also like having *lots* of them. The problem arises when our precious fonts go bad. Remember that fonts, like any other file on your hard drive, are susceptible to corruption. Fonts are just files, but the OS treats them differently. Since they must be available to all programs, they must remain open all the time. This makes fonts especially susceptible to corruption after any system or application crash.

## Curing What Ails You

1. Use a utility such as Font Agent (760-804-9900, http://www.fontagent.com) or Font Reserve (415-381-3303, http:// www.fontreserve.com) to fix and organize your fonts.
2. To determine if a corrupt font is indeed the problem, remove the Fonts folder from the System Folder, then put it on the desktop, and restart. If this gets rid of the error, one of your fonts is bad.
3. Use a font utility to create font sets. This makes it easier to isolate the offender when a font turns to the dark side.
4. Create a Fonts (Disabled) folder in the System Folder and manually drag suspect fonts there for testing purposes.
5. Make sure there are no more than 128 items in your Fonts folder, unless you are using Mac OS 9, which allows 512 items. Too many fonts in this folder can and will lead to font problems.
6. Start opening fonts in the Finder by double-clicking them—the bad one will probably crash your computer. Trash it and reinstall the font from its original source.

## Corrupt Font Symptoms

1. You get an error at system startup as the Finder loads.
2. An application freezes up at its splash screen.
3. You get freezes and errors while printing or saving.




MICROSOFT WORD won't launch if there is a corrupt font. In this case, we know which one is bad.

4. Odd print behavior occurs—for example, fonts don't look as expected.

# CORRUPT PREFERENCES

Applications maintain specific settings by creating a preferences file inside your System Folder's Preferences folder. This file allows each application to know certain things about how you want it set up, such as the default font.

Preference files are a mixed blessing. They provide a way for an application to remember settings without modifying and possibly damaging the program itself. However, they must load every time you launch the program, and every time you quit it, they get rewritten. This leads to the possibility of corruption.

Corrupt preference files stem from the same source as most other corruptions: an application or system crash. This type of corruption can manifest itself in a variety of ways—often very subtle, as you'll see from our list of symptoms. You usually just delete corrupt preferences, unlike other types of files. The application creates new preferences the next time it launches.

## Curing What Ails You

1. Determine the nature of the problem. If you're experiencing an error at startup, first boot with extensions off. Then drag the entire Preferences folder to the desktop and restart. If the error goes away, one of the preferences was corrupt.
2. To fix a corrupt preference problem, simply drag the damaged preference file to the Trash and relaunch the program. Keep in mind that you'll need to reconfigure settings for that app.
3. Lock a preference file using the Finder's Get Info dialog box to cure future preference corruption.
4. As a preventative measure, keep your Preferences folder tidy—a clean folder is less vulnerable to corruption than a messy one. Try Aladdin's Spring Cleaning (831-761-6200, http://www.aladdinsys.com) or ASD's Yank Pro (http://www.asdsoft.com) for cleanup.

## Corrupt Preference Symptoms

1. A program freezes at startup, usually at the splash screen.
2. You get a -39 error referencing a preference file.
3. Program settings don't stick.
4. A program behaves oddly.
5. The Finder behaves oddly.
6. You get an error at startup, especially while extensions and control panels load.

**Contributing Editor Buz Zoller lives in beautiful Austin, Texas, and is patiently awaiting the birth of his first child in March.**

# It doesn't come

# with a standard floppy drive.

# After all, why would you want

# a standard floppy drive.

So you bought an iMac. And now you are in the market for a disk drive that will allow you the capacity to enjoy our multimedia world. Sounds like a plan.

But what about your old floppy disks, you ask? Not to worry. Get a SuperDisk drive, the drive that accepts 120 MB SuperDisk diskettes and your old floppies, giving you easy and immediate access to all of your files, old and new. Maxell SuperDisk diskettes use the same reliable technology as your floppies, and even function in virtually the same way.

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# MacAddict Fun Pack!

ILLUSTRATION BY DAVID "UUURGH!" ROSS

FIND ALL 20 of these magnificent games on The Disc.

# 20 killer shareware games

by David Reynolds and Ian Sammis

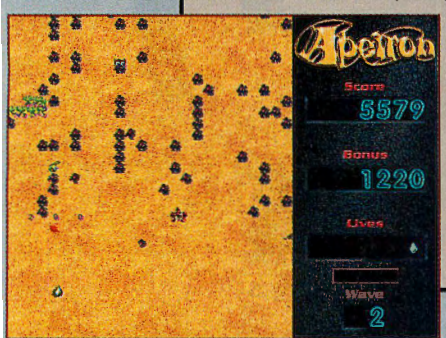
Let's face it—there are times when nothing but a return to the classic time-wasters of Mac shareware games will do, especially when you have a looming deadline you simply *can't* miss. So, for your procrastinating pleasure, we've collected 20 of the all-time best diversions and put them on The Disc. And just so you know what's what, we've included a bit about each game—that way you won't waste any time getting to the important business of wasting time. Oh, and by the way, we know that we list Ambrosia several times in this article. It's only because it has produced the single greatest collection of Mac shareware ever.

## APEIRON

**Ambrosia Software**

**http://www.ambrosiasw.com—$15**

If you ever set foot in an arcade or 7-Eleven in the eighties, you no doubt know the classic Centipede game. And if you do, you should check out Apeiron, a faithful clone of the arcade. In Apeiron, you control a small gun at the bottom of the screen and shoot up through a forest of mushrooms at Cheech, the oncoming centipede, who is determined to make it to the bottom of the screen. Other enemies include a mutant lobster and a hybrid flea-tick. Unfortunately, USB controllers don't work with Apeiron.




## EXILE: ESCAPE FROM THE PIT

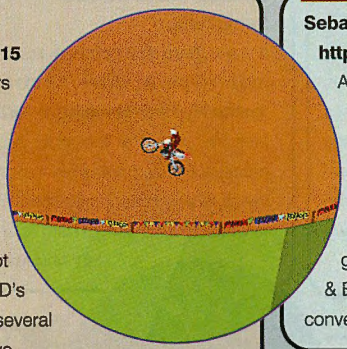
**Spiderweb Software**

**http://www.spidweb.com—$25**

Fans of Sierra's Ultima series will find Exile a familiar return to the classic role-playing format of the mid-eighties. The three games of the series provide precisely the sort of party-building, dungeon-crawling, staying-up-all-night-because-Thor-is-almost-at-level-38 fun that has almost disappeared from the Mac commercial scene.

## DIRT BIKE 3D

**Brad Quick and Michel de Messieres**
**http://members.aol.com/bradquick—$15**



Dirt Bike 3D puts you behind the handlebars of a high-torque dirt bike and slaps you on a track filled with all kinds of jumps and hills. Your objective is to race around the track in a three-lap race. Utilizing a full 3D engine, Dirt Bike 3D simulates motorcycle physics remarkably well—all except the pain of crashing. Plus, with Dirt Bike 3D's network play, you can hit the track with several buddies. This game is surprisingly addictive.

## BUB & BOB

**Sebastian Wegner**
**http://www.mcsebi.de—$20**

As the author phrases it, Bub & Bob is a "90 percent clone" of another eighties arcade classic, Bubble Bobble. In this delightful (and addictive) platform game, you encase monsters who resemble wind-up robots in bubbles while you leap from platform to platform, gathering bonuses and power-ups. You, of course, are a lizard. Bub & Bob also has a level editor so you can create your own levels (and conveniently use those others have created).

## REALMZ

**Fantasoft**
**http://www.fantasoft.com**
**—$20**

Most shareware games don't make it past version 1 or 2; Realmz has made it all the way to version 7. In the vein of the classic Dungeons & Dragons role-playing game, Realmz lets you gather a party of six adventurers, equip them with swords, spells, and armor, and take on all manner of monsters in grid-based combat. While Realmz doesn't have state-of-the-art graphics, it makes up for that shortcoming in sheer depth. Diehard fans have rallied around this game, making many new scenarios for you to play when you finish the first one.

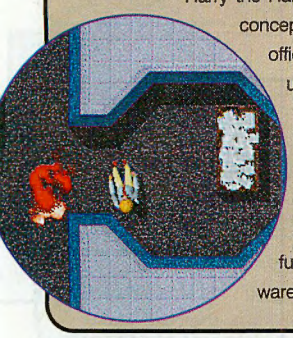
## ESCAPE VELOCITY OVERRIDE

**Ambrosia Software**
**http://www.ambrosiasw.com—$25**

Escape Velocity Override is the successor to the hugely popular (and amazingly complex) space shooter game Escape Velocity. In it, you play the captain of a starship, and you can choose your own career path—whether you're running cargo for Stellar Corporation, boarding ships as a space pirate, or even dominating entire star systems as a despot. The game features 250 new missions, tons of new planets (this universe is *vast*), and new graphics. Override will keep you busy doing nothing for hours.

## HARRY THE HANDSOME EXECUTIVE

**Ambrosia Software**
**http://www.ambrosiasw.com—$20**



Harry the Handsome Executive may have the strangest concept of any game we've seen—the hero is an office worker on a swivel chair. Featuring "genuine swivel chair physics," Harry's maneuvers are precisely the one's you've probably practiced in your own office: He can slowly push his chair forward, quickly slide backward, or kick obstacles for a quick burst of speed. Marked throughout by quirky but funny humor, Harry is among the best shareware games ever released for the Mac.

## ASSAULT VEHICLES

**XYZ Entertainment**
**http://www.public.iastate.edu**
**/~basaraba/av.html**
**—$15 plus shipping and handling**

It's strange—no matter how many times people revisit the venerable Battlezone, the result is almost always refreshing. Assault Vehicles continues in this tradition with a thoroughly enjoyable first-person vehicular shooter. Gameplay is a cross between Atari's coin-op game T-Mek and a more traditional shooter such as Quake. As always, the real fun's in the multiplayer game.

## MAELSTROM

**Ambrosia Software**
**http://www.ambrosiasw.com—$15**

Yeah, yeah, we know, it's just another clone of Asteroids. Nonetheless, Maelstrom deserves mention in any list of shareware games for the Mac, because it launched Ambrosia Software—by any measure the premier shareware company on the Macintosh platform. It's also one of those simple but compelling games that can reduce you to a coma-like state, staring at your screen for hours on end. Don't say we didn't warn you.

## BARRACK

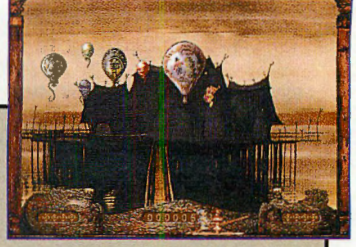
**Ambrosia Software**
**http://www.ambrosiasw.com**
**—$15**

Barrack, another Ambrosia entry, is a bit hard to describe. It contains elements of Qix, but it's not a straightforward clone. Your goal is to enclose portions of the playing field with lines while excluding the bouncing balls. The lines, which extend outward from the cursor, remain vulnerable until you anchor both ends; if a ball hits a line before it's anchored, you lose a life.

## FROG XING

**Quarter Note Software**
**http://www.qnote.com—$15**

There's something about guiding a small green frog across a busy highway and over some logs in a fast-moving river that makes us feel all mushy inside. That's the objective of Frog Xing, a shareware Frogger clone. Guide your frog home—and if you find love along the way, you'll pick up some bonus points. (One bonus—you can set the cars to drive like British cars if you fancy a trip across The Pond.)



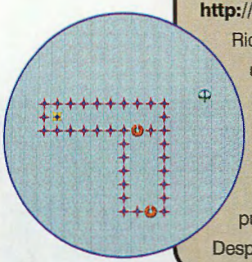
## JUMP ZAMPOLI

**RampZamp**
**http://hyperarchive.lcs.mit.edu/HyperArchive/Abstracts/game/HyperArchive.html—$20**

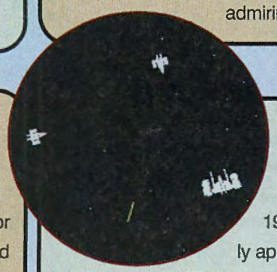
Featuring some of the most beautiful art we've ever seen in a shareware game, Jump Zampoli is stunning. You control a pair of dwarves who leap into the air to pop balloons that float above their heads. The game is so much fun to watch that it's almost hard to concentrate on playing; we've lost many lives admiring the eerie background and the balloons.

## RICOCHET

**Robert Urschel**
**http://www.boburschel.com/ricochet/ricochet.html—$20**



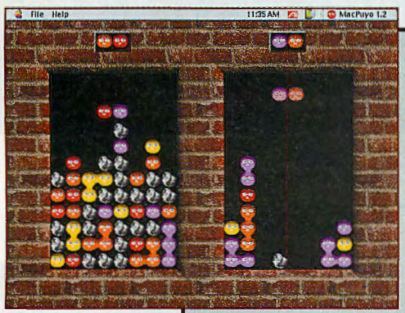
Ricochet is relatively simple in concept—a ball rolls in a straight line unless the player drops barriers into its path to make it turn left or right. The barriers are permanent, and can eventually make it hard to finish the level. Players must direct the ball past a variety of obstacles to collect all the targets on a level. The arrangements of obstacles present the player with a series of increasingly difficult puzzles to solve. For some reason, the whole thing just works. Despite the simplistic graphics, this game is enormously entertaining.



## ARES

**Ambrosia Software**
**http://www.ambrosiasw.com—$25**

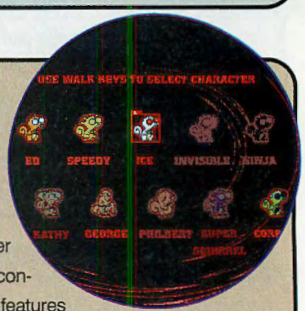
Previewed in our premiere issue (way back in 1996), the real-time space strategy game Ares finally appeared under Ambrosia's auspices. Ares features a revolutionary way of zooming into and out of the game's action, allowing you to go from piloting a single ship to controlling the output of entire planetary systems. Your mission? Liberate the Earth from marauding alien invaders. It quickly gets more complicated than you might think, especially if you play a network game with a friend.



## MACPUYO

**Liquid Metal Software**
**http://www.liquidmetalsoftware.com—$15**

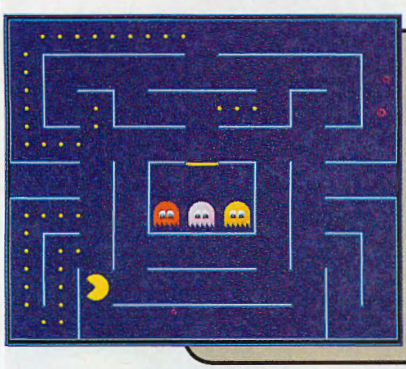
What list of time-wasters would be complete without a Tetris clone? Not this one, bub—and MacPuyo is a fast-moving version featuring groups of colored blobs instead of bricks. Get four blobs of the same color lined up, and they go away. Simple, right? Not so. This game moves amazingly fast, and the two-player mode is especially brutal. Players of the original Puyo Puyo will be relieved to know that you can turn off the updated music in MacPuyo.




## SQUIRREL KOMBAT

**http://www.monkeyfarm.com—$15**

A true original, Squirrel Kombat pits two gifted squirrels with extraordinary abilities against each other in a grudge match to the death. Players can choose from several different squirrels, each with his or her own special move. For those who want to control the level of graphic violence, the game features the ability to set the color and amount of blood. One of the best features of this game is its collection of sound effects—especially the music!



## PAC THE MAN

**McSebi**
**http://www.mcsebi.de—Free**

As you've probably guessed from the name, this one's a Pac Man clone. It's a very, very good one, though—with 20 different maps and cheerful music, this would have been *the* killer game of 1982. Gameplay is true to the original, so if you didn't get enough of this stuff in the eighties (or if you were born too late to gobble dots), check Pac the Man out.

## SOLITAIRE TILL DAWN

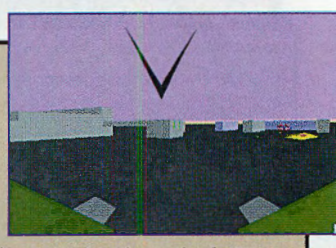
**Semicolon Software**
**http://www.semicolon.com—$20**

Over the years, a number of outstanding solitaire games for the Mac have appeared. Semicolon's Solitaire 'Till Dawn is easily the best so far—it supports 34 different variations of solitaire, from the familiar Klondike to such esoteric games as Aces High and Mount Sunflower. You'd better love card games before you get started on this one.

## NANOSAUR

**Pangea**
**http://www.pangeasoft.net—$30 donation**

Featuring outstanding graphics (with RAVE acceleration), Nanosaur drops you into a prehistoric world as a little itty-bitty dinosaur (a Nanosaur) with a jet pack and a gun. You've traveled back in time to rescue eggs from five dinosaur species before an asteroid crashes into Earth. If you like the game, donate $30 to the charity of your choice.



## AVARA

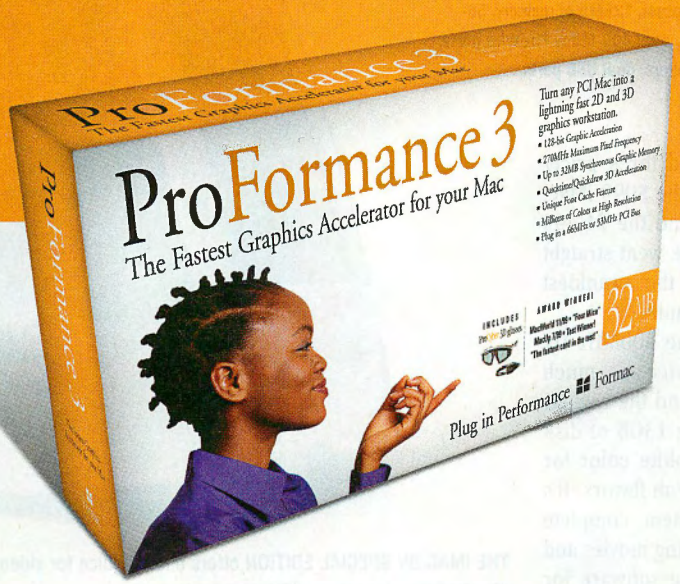
**Ambrosia Software**
**http://www.ambrosiasw.com—$20**

Avara is Ambrosia's answer to MechWarrior, and it's not a bad one at all. It's getting a bit dated (these days it's disconcerting to see a 3D game without texture mapping), but the gameplay is still outstanding. Avara also features a unique level creation method involving PICT files—you can get dozens of user-created levels from ftp://ftp.avara.com/avara.

**Ian Sammis and David Reynolds have spent a little *too* much time discussing the finer points of what makes a shareware game great.**

VISIT OUR BOOTH AT MACWORLD EXPO IN SAN FRANCISCO / JANUARY 2000

# Think Better!

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# reviews

When you care enough to get your Mac the very best.

## iMac DV Special Edition

**FREAKIN' AWESOME**
The most valuable products, the coolest gizmos.

**SPIFFY**
A solid offering. Overall a good investment.

**YEAH, WHATEVER**
A few good features, but generally a waste of time and money.

**BLECH!**
We hate to even blotch our pages with the thing.

**HARDWARE**

**COMPANY:** Apple Computer
**CONTACT:** 800-795-1000 or 408-996-1010, http://www.apple.com
**PRICE:** $1,499 (SRP)
**SPECIFICATIONS:** 400MHz G3 processor, 128MB of memory, 56-Kbps modem, 13GB of disk storage, dual 400-Mbps FireWire ports, slot-loading DVD drive, stereo speakers, dual USB ports, 10/100Base-T Ethernet

PHOTOGRAPHS BY AARON LAUER

**THE IMAC DV SPECIAL EDITION offers enough juice for video playing and editing, and has a dignified translucent graphite exterior to boot.**

The latest iMac spawned three price/performance options: the $999 iMac, the $1,299 iMac DV, and the $1,499 iMac DV Special Edition. We went straight to the top and test-drove the swankiest member of the new iMac family.

With 128MB of RAM, the 400MHz DV Special Edition boasts twice as much memory as both the iMac and the regular iMac DV—plus a whopping 13GB of disk space and a signature graphite color for those who are fed up with fruit flavors. It's a fast, compact desktop system, complete with a DVD player for watching movies and Apple's iMovie video-editing software for making your own. The Special Edition is a straight-out-of-the-box upgrade from the regular iMac DV, and if you're a multimedia fanatic, you'll need all that extra memory and disk space.

The whole iMac clan sports some sleek design changes. Apple has scrapped the opaque radio-frequency cage, so you can see clear through the casing to the other side. Expanding memory and hooking up accessories have never been simpler. FireWire fanatics (like us) should take advantage of the DV models, which come with two FireWire ports and an external VGA port for video mirroring. While this is less useful than genuine second-monitor support, it does allow the iMac to replicate its main screen on a second monitor. You may want to, say, route a signal to your home video system (you'll need an adapter) and play a DVD movie on a truly *enormous* screen.

Apple has done a beautiful job of integrating all the components to make a screamingly fast machine (see "Just How Fast Is It?", p46, for more on performance). The FireWire and USB ports worked as expected, allowing us to use video cameras, FireWire drives, and an abundance of peripherals without much trouble.

Finally, the iMac is a decent gaming machine. After producing graphically challenged iMacs for over a year, Apple has given the new generation a killer graphics subset: an ATI Rage 128 VR chip with 8MB of SDRAM, sitting in a 2X AGP port. This combo makes Quake III Arena playable and Unreal Tournament glittering. We had some problems getting Quake III Arena to work properly in 32-bit mode, but it does fine in 16 bit. With one of the fastest video subsystems on any Mac, the iMac DV is great for graphics, too.

The clumsy spring-loaded manual CD tray of old gives way to a discreet slot drive on this iMac, whisking your CDs and DVDs in and out effortlessly with a gentle whoosh. Be careful, though—the absence of a tray allowed us to insert a disc with one already in the machine. The immedi-

**THIS IS NO INTERNATIONAL MAC OF MYSTERY—its point of origin is clearly stamped on its underbelly.**

i was Assembled in Mexico
my Family Number: M5521
Apple Computer, Inc.
Cupertino, CA 95014

# MiMovie or Yours?

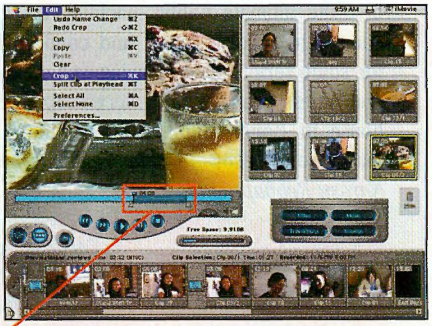
Apple's iMovie brings video editing to the masses. The program is designed to get you up and running quickly, and it lives up to its promise. Using a DV recording device and a FireWire connection, you can import video clips directly into iMovie, edit them, and arrange them to your liking in the clip viewer. Add audio, work in some basic movie pizzazz, export your film to QuickTime or back to tape, and you've got a movie. The interface is intuitive, and a few minutes with Apple's online tutorial (http://www.apple.com/imovie) should get you started. It's a snap to add CD audio tracks, voice-overs, and special effects, but normalizing audio levels with iMovie's Clip Volume Control takes a few tries. *MacAddict* put iMovie to the test by giving it to a staff member who had never so much as picked up a DV camera before. After a morning of filming, a few hours with iMovie, and not one system crash, she created a short production complete with soundtrack and credits. But she's not quitting her day job just yet.—*NR*

**1 Importing Video to the Clip Shelf**

First you connect your DV camcorder through the iMac's FireWire port. Click the Import button, and iMovie imports film footage (called *clips*) and stores them in the Clip Shelf.

**2 Storing Your Clips**

The number of wells in the Clip Shelf depends on your monitor's resolution: At 800 by 600, you get nine wells. At 1024 by 768, you get 12. Although iMovie allowed us to import clips of any length, be careful—a 30-second clip weighed in at a whopping 107MB.



**3 Editing Clips**

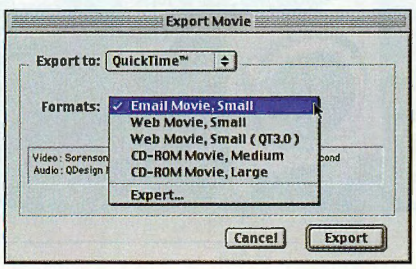
Remove dead air from your clips by adjusting the crop markers under the scrubber bar to select unwanted footage. Then choose Crop from the Edit menu.

**4 Adding Transitions**

Add scene transitions to your movie by clicking the Transitions button, choosing a transition from the palette, and dragging it between two clips. (Hint: Cross Dissolve smooths out segues between clips.)

**5 Adding Audio**

Add music from a CD by clicking the Music button, choosing a track, and clicking the Record Music button. Use the audio slider and fade-in/fade-out located in the audio viewer to control volume levels and transitions.




**6 Exporting Video**

Choose Export Movie from the File menu to create a QuickTime file or send your movie back to tape. In iMovie, you'll find preset frame-rate and compression options for emailing your movie, displaying it on the Web, or burning it to a CD-ROM. Or choose your own QuickTime settings using the Expert option.

ate Cuisinart-esque grinding sound quickly told us to not do that. The if-all-else-fails-use-a-paper-clip-to-remove-your-disc technology still exists in the new slot drives, but the miniscule hole hides at the far right side of your CD drive.

The new iMacs run more quietly. Apple replaced the fan with a convection cooling system—but this noiseless option created a searing heat wave of 106 degrees Fahrenheit at the top of our machine, leaving us wondering if we could shake up some Jiffy Pop to go with our DVD movie.

If you invest in the DV Special Edition, budget for a DVD video library and DV camera too, as digital video playing and editing are this machine's real attractions. The Apple DVD player is still a beta version, and its overall sound levels are much quieter than an audio CD's. At full screen, visuals are crisp and special effects and soundtracks come in loud and clear. Dialogue, however, sounds muffled even at maximum volume. This is the inevitable result of watching a made-for-theater release on your computer; theater sound levels are generally more dynamic. Using an external set of speakers will help, but for leisurely viewing you might want to opt for a DVD player hooked to your TV.

in review

**PRODUCTIVITY**
PALM VII p. 48
ACTION FILES 1.5.1 p. 59
ETHERPEEK 4.0 p. 66

**MULTIMEDIA**
QDESIGN MVP p. 54

**DESIGN & GRAPHICS**
PAINTER 6 p. 50
STUDIO ARTIST 1.1 p. 52

**FUN & GAMES**
TOMB RAIDER III p. 49

**HARDWARE**
IMAC DV SPECIAL EDITION p. 44
OLYMPUS D-450 ZOOM p. 56
RIO 500 p. 58
DESK JET 970CSE p. 60
MULTIPASS C635 p. 62
POWERDOMAIN 39160 SCSI ACCELERATOR p. 64
KEYSPAN DIGITAL MEDIA REMOTE p. 67

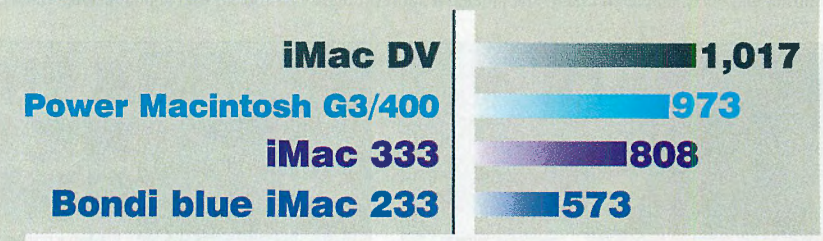
With a DV camera and a little FireWire, you're well on your way to making creative home movies. The iMac DV models come bundled with iMovie, Apple's video-editing software (see "MiMovie or Yours?", p45).

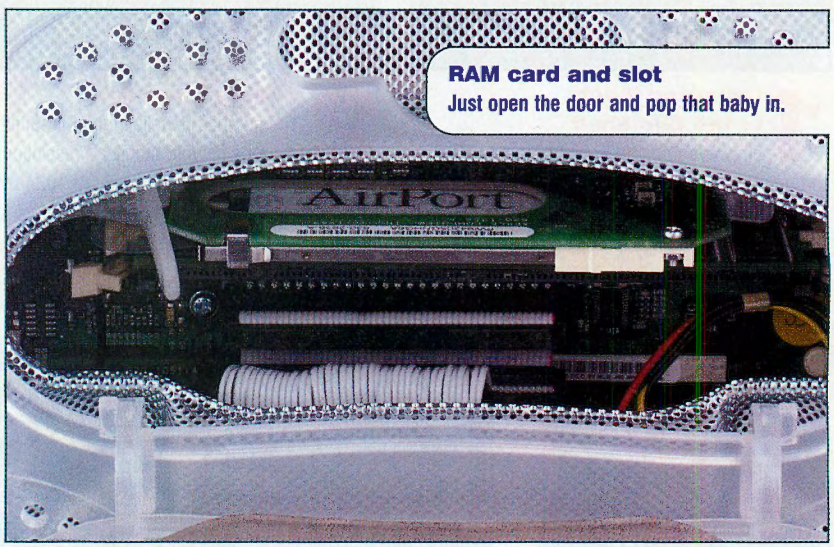
The iMac DV Special Edition is exactly what the folks at Apple intended it to be—the ultimate hobby machine. It's got enough juice, disk space, and connectivity for some serious video playing and editing. And unless you've already accessorized the house in Bondi blue, it's more likely to match your decor.—*David Reynolds and Narasu Rebbapragada*

GOOD NEWS: A freaking load of memory that's easy to upgrade. Video mirroring. FireWire ports. Comes in a color you can't eat.
BAD NEWS: Muffled dialogue in DVD movies. DV camera not included.

## Just How Fast is It?

According to Norton Utilities System Info, the iMac DV with its 400MHz G3 and fast video subsystem stomps some familiar Macs. Longer is better, despite what you may have heard on some TV commercials.




**RAM card and slot**
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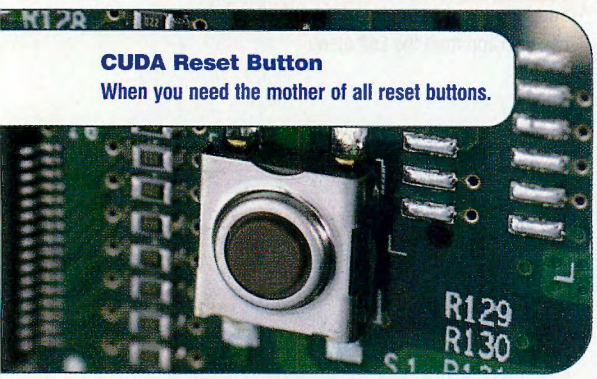



**CUDA Reset Button**
When you need the mother of all reset buttons.

## AirPort

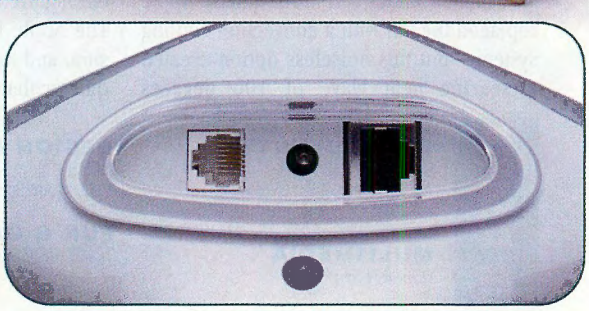
**COMPANY:** Apple Computer
**CONTACT:** 800-795-1000 or 408-996-1010, http://www.apple.com
**PRICE:** AirPort Card $99 (SRP), AirPort Base Station $299 (SRP)

We had our first chance to play with the much-ballyhooed AirPort wireless networking technology on the iMac DV. Installing the AirPort card (which runs the Base Station) is relatively painless: You turn the iMac on its face, open the access panel on the bottom, connect the antenna to the AirPort card, and insert the card in its slot next to the RAM. Lining up the card with the slot turned out to be a little challenging.

Although AirPort networking theoretically tops out at 11 Mbps, in practice connection speed often seemed slower when we used an AirPort Base Station. Still, it was fast and reliable enough for playing Quake III Arena network games without much lag, and it's nice to have Ethernet-level connectivity without cables and hubs. Connecting to another AirPort-equipped Mac was also painless through the AirPort control strip module.—*DR*

GOOD NEWS: Really fast. Painless setup.
BAD NEWS: More practical for an iBook than for an iMac.

**GO WIRELESS with this space-age set.**



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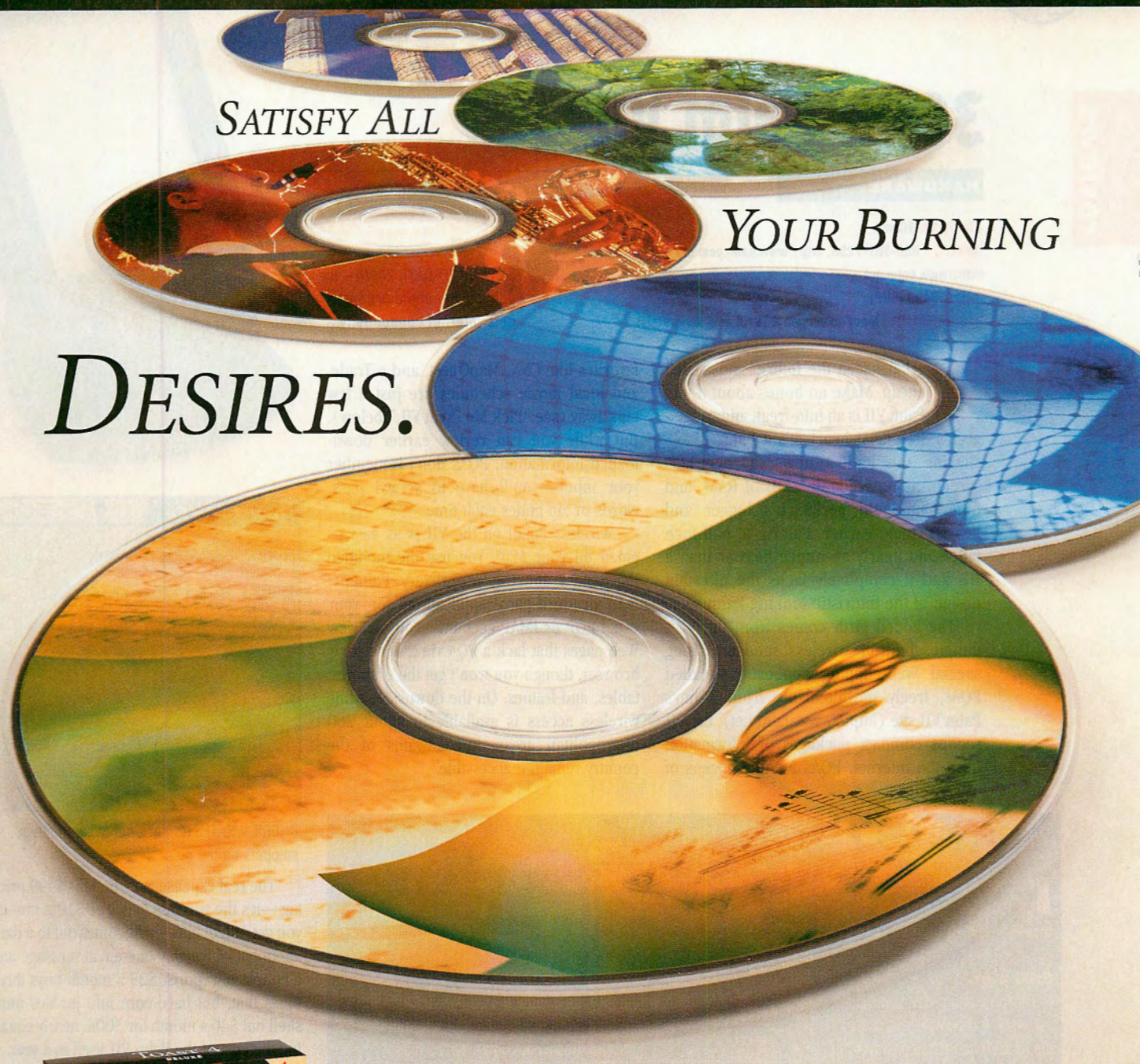

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# 3Com Palm VII

**HARDWARE**

**COMPANY:** 3Com
**CONTACT:** 800-881-7256, http://www.palm.com or http://www.palm.net
**PRICE:** $499 (SRP)
**REQUIREMENTS:** MacPac version 2 ($10, sold separately)

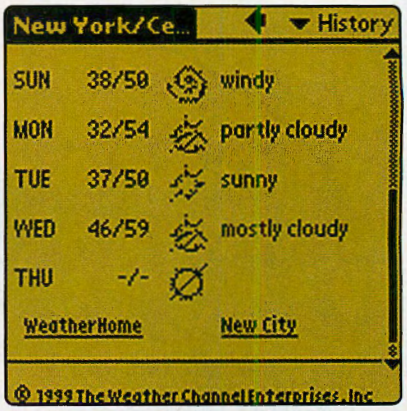
PHOTOGRAPH BY AARON LAUER

**STAY UP-TO-DATE 24-VII—the popular handheld organizer gets Internet connectivity.**

We have seen the future, and it ain't cheap. Make no bones about it, the Palm VII is an info-freak and gadget-geek's dream. At heart, it's a Palm IIIx—sharing the Palm's new, sharper LCD screen, nonupgradable 2MB of RAM, and other handheld perks. It's bigger and heavier than earlier Palms, a half-inch taller and nearly an ounce heavier than a III, and it completely lacks the ultrathin design of the futuristic-looking Palm V.

The added girth comes from the VII's unique, built-in wireless modem. Using special Web-clipping applications called PQAs, freely downloadable from 3Com's Palm VII site (http://www.palm.net), the VII scoops compact packages of information from the Internet. PQAs include dozens of favorites like CNN, MapQuest, and e-Trade, and local movie schedules are just a few taps away (see "Pick Me Up at VII," below). But while you can review earlier downloaded information, PQAs don't remember your input—you'll have to scrawl passwords or zip codes each time.

Wireless email on the VII is as easy as email on your Mac. You use the included iMessenger for the proprietary Palm.net mail or third-party applications for your usual POP or IMAP accounts. You can view Web pages that lack a PQA via a third-party browser, though you won't get the graphics, tables, and frames. On the downside, while wireless access is available in about 260 metropolitan areas, huge swaths of the country remain inaccessible.




**CHECK WEATHER, stock quotes, and news snippets on the go.**

The real expense isn't the VII's $499 price tag—it's the wireless fees. For $10 a month, you get 50K of info—this comes out to a daily allotment of roughly one email message and a couple of reports. $25 a month buys three times that, but hard-core info junkies must shell out $40 a month for 300K, nearly equaling the cost of the Palm VII itself in a year. If you're iMac only, you'll also need to buy the $39.95 PalmConnect USB Kit.

If you're an info junkie needing up-to-the-second information in places wired modems don't reach, the Palm VII is for you. The rest of us will pick up a Palm modem and stick close to phone lines. —*Joseph O. Holmes*

**GOOD NEWS:** Typical Palm ease of use. Dozens of free clipping apps. Thousands of standard Palm apps.
**BAD NEWS:** Expensive wireless service. Bigger and heavier than earlier Palms. Wireless service unavailable in many areas. PQAs don't remember input.

## Pick Me Up at VII

It's cool, but is it useful? We took the Palm VII out for dinner and a movie in New York to test just that.

**6:30 p.m.**
Reception indoors was nonexistent, so out on the sidewalk we used the MovieFone PQA to discover that *Being John Malkovich* was playing nearby.

**6:45 p.m.**
Reception in the car was fine, but the Etak TrafficTouch PQA wasn't much help—it only reported traffic jams *outside* the metropolitan area. And there was no PQA to help us find a parking spot.

**7:20 p.m.**
As we waited for the movie to start, we wondered what other films we'd seen Catherine Keener in—again, we couldn't connect indoors. But after the film, the Movie Database PQA gave us a complete list—remember *Living in Oblivion?*

**CATHERINE KEENER'S LIST OF FILM APPEARANCES is just a few taps away via the Movie Database PQA.**

**9:30 p.m.**
Restaurant guides—including ones from Fodor's, Frommer's, and Restaurant Row—left us hungry, pointing out major tourist eateries but none of the great little spots we love.

**WIRELESS ACCESS IS THRILLING for info addicts.**

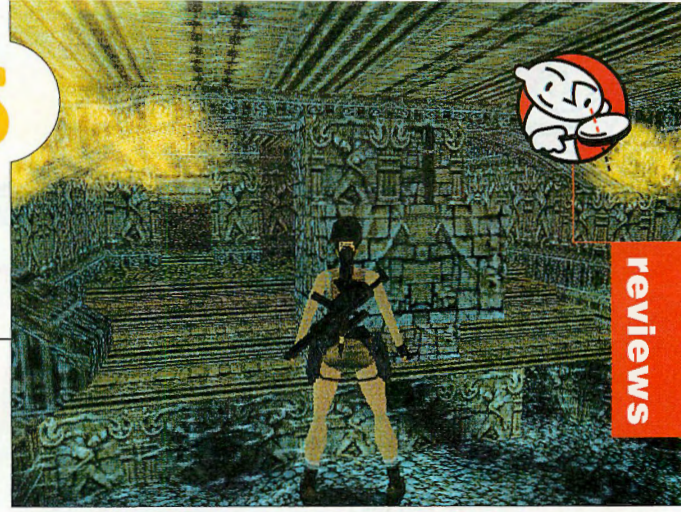
**10:00 p.m.**
While waiting for dinner, we checked our Earthlink email via ThinAirApps' ThinAirMail and eyeballed the state of our eBay auctions—the bidding wasn't high enough to pay for a month's wireless bill.

As we found out, the Palm VII's usefulness depends on the PQAs' quality, ranging from indispensable to delete me, please.

# Tomb Raider III

**FUN & GAMES**

**COMPANY:** Aspyr Media
**CONTACT:** 888-212-7797 or 512-708-8100, http://www.aspyr.com
**PRICE:** $49.95 (SRP)
**REQUIREMENTS:** 180MHz or faster PowerPC 603e or later (iMac or G3 recommended), Mac OS 7.5.3 or later, 16MB of RAM (32MB recommended), 4X CD ROM, QuickTime 4 (included), 3D acceleration recommended




A BETTER GRAPHICS ENGINE provides more convincing environments and textures than those in Tomb Raider 2.

Lara Croft, like Weird Al Yankovic, refuses to change with the times. Al's lyrical stylings are trapped forever in a haze of eighties zaniness, while Lara is trapped in the limited polygonal builds of the mid-nineties. Mac game players are used to long waits for ports, but Tomb Raider III was starting to look old at its PC release almost a year ago. The Mac version is every bit as good (if not better), but hardly up to the graphical standards of the current state of the art (Quake 3).

The gameplay makes up for its lack of depth with sheer quantity. If you're unfamiliar with the Tomb Raider series (perhaps you're unfamiliar with Pac-Man, too), let us enlighten you. Lara Croft is an aristocratic young lady who likes nothing better than running around exotic locales, solving puzzles, battling villains, and exploring lost civilizations—Indiana Jones with an overstuffed bra, if you will.

This third game in the series has a well-defined plot, almost compelling enough to make some of the longer levels interesting. The story involves the discovery of a crystalline meteorite and its link to an ancient Antarctic culture and human evolution. Like any mythical crystal worth its salt, the meteorite has been split into four artifacts, and they're all hidden away in a safe deposit box off the New Jersey Turnpike. Oh, wait—no, they're not. They are in fact scattered to Earth's four corners under the watchful eye of various villains—so get your passport.

There are 19 levels in all, set in locations as far-flung as India, Antarctica, and the South Pacific. This means you can explore a large variety of locales, such as jungle swamps and underground bunkers in Area 51. Lara also has to deal with a diverse bunch of miscreants, from simple gun-toting thugs to a slavering T-Rex (also featured in Lara's last outing). The third-person action and pace remains intact. Lara has plenty of abilities, but is hardly fast on her feet. Occasionally the meandering levels and slow pace can be frustrating.

To brighten this fugue, Eidos (the original developer) has thoughtfully included a number of new abilities and vehicles. Lara can climb and clamber, duck and crawl, shoot and harpoon, but more important, she can drive. Tomb Raider III has lots of vehicles. She can paddle a kayak (strangely relaxing), ride a quad bike, pilot a boat or an underwater propulsion unit—and what adventure would be complete without a mine cart? She can't steer it, but she can pull the brake.

Controls and interfaces are exactly the same as those in the previous game, including the novel but clunky passport interface. That means the counterintuitive sidestepping and jumping are intact. Ease of control was never Tomb Raider's strong point. Upon completion of the first level (India), you can enter the other locations in any order—very useful if you find yourself stuck or wandering in circles on a tough level.

There are few things wrong with this game, and for series fans, it represents a passable upgrade. Unfortunately, you may also need to upgrade your hardware, since Tomb Raider really requires a G3 or iMac to run well. A 603e can choke it out, but the game looks pretty horrible without 3D acceleration.—*Frank O'Connor*

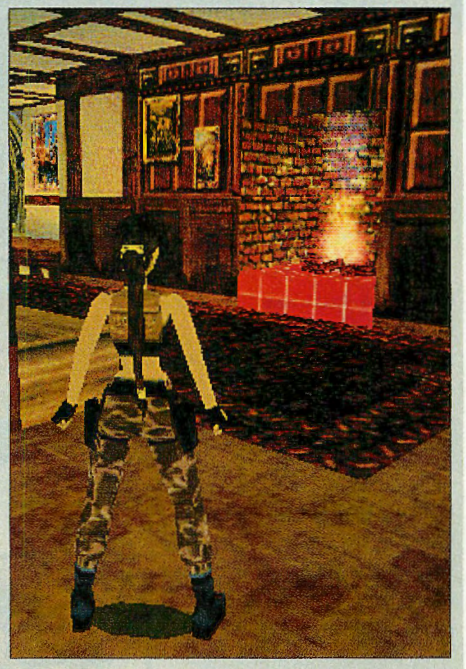
FIND A DEMO of Tomb Raider III on The Disc.

**GOOD NEWS:** A vast, playable, and relatively interesting sequel to a series that's a bit long in the tooth.
**BAD NEWS:** A processor hog. Some messy level design. Not a whole heck of a lot in the innovation department. It's not Quake 3.

## The First Puzzle

One of the first things you'll need to do is find a key in Lara's house—not the most original task ever, but hey, it's a game. First you need to lock the butler in the freezer (no, really). Then go to your bedroom and pick up the flares from the room next to the bed. Next, go down the hall and into the attic. Since it's dark, you should light the flare. Find the blue box and push it forward twice. Leave the attic and go to the upstairs library. On the right there's a bookshelf with a movable book. Push this book.

This extinguishes the fire, allowing you to walk into the fireplace. On the left is a climbable wall that takes you to a secret passage leading to the attic and thence a secret room. In the room, climb onto the ledge and push the box from the attic to the left. Go to the other end of the ledge, light another flare, and pull the lever. The scene cuts to a door opening under the stairs—quickly turn around and run to the door. Once you're there, find another green box and pull it backward once and to the right once. Jump up into the secret passage and then dive into the water connected to the fish tank. Swim around the tank to the other side, but stay near the glass—you'll find the key in the water. You can see it if you check out the fish tank in the basement.



HINT: SILICONE AND FIRE don't mix.

# reviews

## Painter 6

**DESIGN & GRAPHICS**

**COMPANY:** MetaCreations
**CONTACT:** 805-566-6200 or 800-846-0111, http://www.metacreations.com
**PRICE:** $399 (SRP)
**REQUIREMENTS:** PowerPC, Mac OS 8 or later, 32MB of RAM required (64MB of RAM recommended), 178 MB of hard disk space, color display (24-bit recommended), 2X CD-ROM drive

The latest version of Painter from MetaCreations is, hands down, the best yet. For previous users of the software, Painter 6 adds some really powerful new features such as layers, an improved brush engine, and dynamic text.

If you've never used Painter but are looking for a product that really captures the essence of natural-media art, this is the best version to learn. Painter's purpose is very different from Adobe Photoshop's and Illustrator's. While Photoshop is a pixel pusher and Illustrator manipulates vector art, Painter simulates the way an artist would use chalk or oils. If you already know how to use real-world media, you'll get stunning results. If not, be prepared for a steep learning curve.

**PAINTER 6 IS LIKE A WHOLE NEW PRODUCT,** with a redesigned interface, a new rendering engine, and a huge list of new features.

**Paper Selection:** Select paper and painting nozzles from the Art Materials palette.
**Brush Sizes:** This palette makes brush selections and settings feel more natural.
**Brush Palette:** Adjust everything from brush size to bristle thickness.

Painter 6 has a whole list of new features that will appeal to users of earlier versions. An updated user interface, a brush engine, brush loading, text on Bézier curves, a responsive palette knife, an image hose, motion damping for smoother edges, and support for the Intuos drawing tablet are just a few, but the one which singlehandedly earns Painter a *Freakin' Awesome,* is layers.

The new layers functionality addresses what has always been Painter's biggest weakness, a counterintuitive and nonstandard floaters palette. With layers, you control elements fully, just as you do in applications such as Photoshop. You can make a selection on a layer, use it in another layer, or copy and paste between layers. Layers also apply textures to transparency masks, so you can draw on a mask with any of Painter's tools. You can also apply Photoshop-style inks such as Multiply and Screen or add Painter-specific inks like Gel and Magic Color.

Perhaps the biggest overall change in Painter is the brush engine. In previous versions, Painter dabbed a series of dots with different widths and spacing on the canvas when you painted. This method was dog slow, and if you were really in the groove, your brush simply couldn't keep up with you. In Painter 6, the painting engine more accurately resembles a brush, with every hair rendering a continuous 1-pixel line of color. This feature is most effective combined with another addition, brush loading. When your brush gets loaded or contaminated, it picks up extraneous additional colors from the canvas or palette. You can control the unintended effects by choosing a unique color for each bristle.

While the new rendering method improves speed considerably, even on a fast G3, Painter still lags behind your strokes. Another new feature, multistroke spooling, addresses this issue by recording your brush strokes and accurately reproducing them on the canvas when your computer catches up with you.

Painter 6 is worth the upgrade—it's a far better designed application. The new user interface makes adjusting brush and paint settings much easier. The only drawback is that you need a background in natural media to take full advantage of Painter's strengths.—*Rick Sanchez*

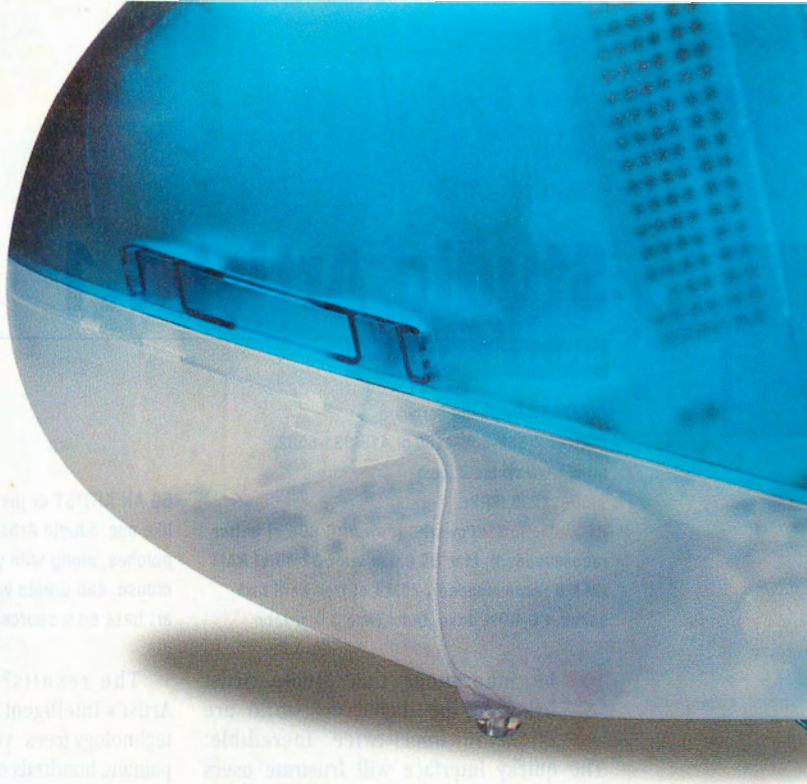
GOOD NEWS: Supports layers. Improved painting engine. New interface. BAD NEWS: Still very demanding on CPU. Learning curve even for previous users.

### What's New?

**Handle good-looking curves** with dynamic text, which lets you use Bézier curves to manipulate the text's baseline path and add handles for precise control.

**Impasto creates the illusion of depth.** Build up your brush strokes to suggest shadow and highlights. You can also cut through the paint to the canvas.

**Unleash your image.** Load a picture into the image hose and spray it on your canvas with variations in size, rotation, and color.



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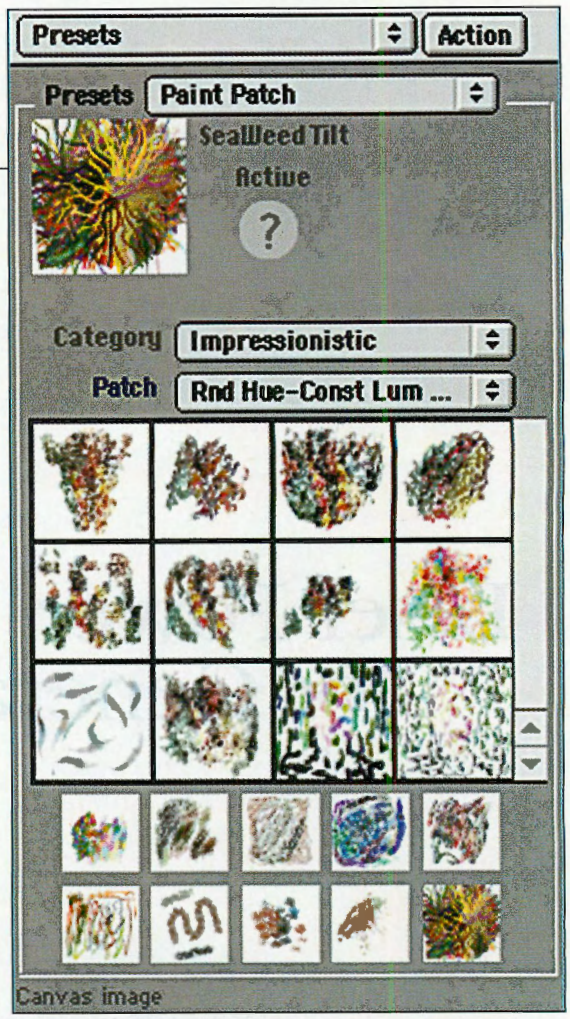
# reviews

# Studio Artist 1.1

**DESIGN & GRAPHICS**

**COMPANY:** Synthetik Software
**CONTACT:** 888-808-4188 or 415-864-6582, http://www.synthetik.com
**PRICE:** $295 (SRP)
**REQUIREMENTS:** PowerPC (PowerPC 604 or better recommended), Mac OS 8.0 or later, 32MB of RAM (96MB recommended), 20MB of free hard disk space, CD-ROM drive, QuickTime 3.0 or later




**BE AN ARTIST** or just look like one. Studio Artist's paint patches, along with your mouse, can create works of art base on a source image.

FIND A STUDIO ARTIST 1.0 demo on The Disc.

The innovations that Studio Artist brings to the digital art world are click-your-heels-twice incredible. The quirky interface will frustrate users at first but reward their patience in the end. This unusual painting software produces stunning effects for artists at any skill level.

The first "graphics synthesizer," Studio Artist translates the allegory of music synthesis to a paint program. Using its Intelligent Assisted technology, Studio Artist *sees* and examines the structure of a source image, then allows you to choose a paint patch to draw that image from scratch on a blank canvas. These patches, which you can modify like synthesizer patches, range from paints and pencils to color alterations you can apply with one click. Creators based Studio Artist on human visual cortex research. Synthetik re-created parts of this cortex in software, which actually *understands* colors, lines, and shapes within the source image.

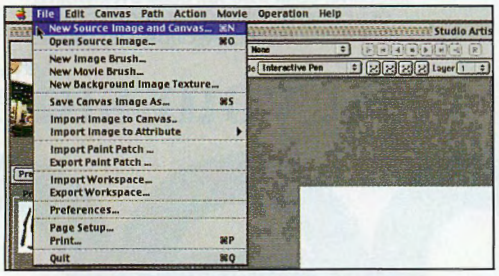
The results? Studio Artist's Intelligent Assisted technology frees you from painting hundreds of strokes as you would on a physical canvas or in another paint program. Instead, just drag your mouse across the virtual canvas and let Studio Artist stroke outlines, sketch, or crosshatch. Click the Action button and the program draws the source image on its own. Once you start combining your own lines with the computer-controlled marks, it becomes difficult to tell which is intelligent and which is assisted.

Studio Artist lets you draw by hand with multiple strokes. You can rough in an area while the program paints with the stroke you have selected. From one sweep of the mouse, Studio Artist can make 40 globs of paint. And if you want to paint without Studio Artist backseat-driving, simply opt for solo drawing.

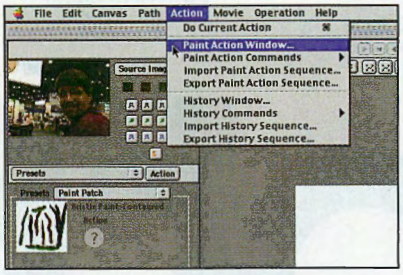
Studio Artist also allows nearly infinite customization. If the 600-some patches don't offer the right look, you can edit about 200 variables to tweak their results.

## Special Effects In QuickTime

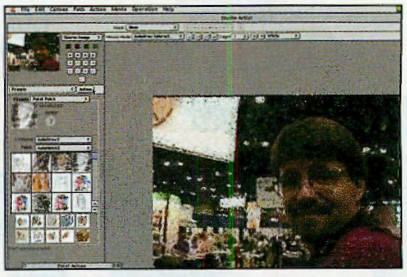
Studio Artist gets a *Freakin' Awesome* for its ability to work with QuickTime files. Without touching the canvas, we repainted this clip of Dave at Macworld Expo.




**1** Prepare your canvas. Select New Source Image And Canvas from the File menu. Choose your QuickTime video and click OK.




**2** Prepare a record of your actions. Select Action, Paint Action Window to view the action-recording window. Click the Erase button and then the Record check box.

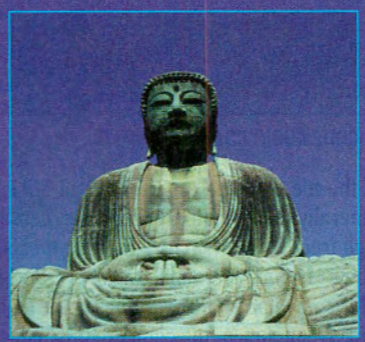


**3** For a simple, hand-painted look, choose Movie Brush 1 and Auto Pencil Sketch 1 as the top layers. Then uncheck the Record box of the Paint Action Window.

## Before And AFTER

A myriad of patches and effects turn average snapshots into trippy works of art.

TWELVE PAINT PATCHES went into this one.



MORPHING AND WARPING and cloning, oh my!

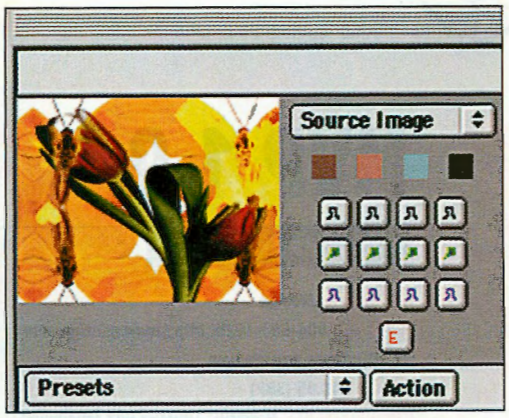
Or you can randomize these variables to form a different paint patch, or combine two distinct preset patches into a new tool. With billions of variations at your fingertips, you'll never have to repeat patches.

4 With your Paint Action Window in the foreground, select Movie, Process Movie File With PASeq, To Movie. Select your video clip, and Studio Artist paints each frame.

Even though Studio Artist doesn't accept traditional plug-ins such as KPT, you probably won't miss them. Instead, you can modify your patches so much that they stop looking like paint actions and start to resemble the kinds of manipulations previously reserved for third-party plug-ins.

Studio Artist's best surprise is its support for animation and video. You can create keyframe or cel animations from scratch, manipulate existing video frames one at a time, or re-create QuickTime movies. In no time, you'll be turning out automated effects that make you the cartoon envy of Bill Plympton or at least A-Ha.

The biggest problem of Studio Artist is that it doesn't capture that certain Mac interface *je ne sais quoi*. This is baffling, because Studio Artist is a Mac-only product, not a port. You can't use many key commands common in other applications. When you have a layer selected, pressing Delete does nothing, and you can't click the names of buttons instead of their corresponding check boxes.




STUDIO ARTIST'S INTERFACE can be a little esoteric. These icons are actually memory buttons that store information about paths, brushes, paint, and other parameters.

The most glaring deviation from the Mac look and feel is that you must access nearly everything through layers of menus and submenus. Highlighting areas, changing modes from computer-assisted to freeform drawing, and selecting a new color all require menus. Synthetik would have served its users better with an interface that lets you control via buttons as well as menus. That said, you can get used to the interface with a bit of effort.

Some sloppy bugs also marred our experience. We encountered various error messages in baffling programmer-speak. Also, the documentation, though generally helpful, doesn't always match what you see onscreen.

There is no multiple-undo feature in Studio Artist. The only consolation is that you can record your actions and edit that record. However, modifying this list and then replaying your actions takes much more work than just pressing command-Z a few times.

Every self-respecting übernerd artist should own Studio Artist—but we are looking forward to a more refined interface in future versions. The program shifts the emphasis of art from perspiration to inspiration. You can create art in a fraction of the time a standard paint program requires. Fine artists (even digital ones) may grumble that Studio Artist removes the joy of the detailed artistic process. But if the result is more important to you, that's where Studio Artist excels.—*Zack Stern*

GOOD NEWS: First artificial intelligence art program. Support for animation and video. Boundless tweaking potential.

BAD NEWS: Interface not intuitive. No multiple undos. Can't resume aborted video render.

# MVP 1.0

**MULTIMEDIA**

**COMPANY:** QDesign
**CONTACT:** 604-688-1525, http://www.qdesign.com or http://www.mvpsite.com
**PRICE:** $19.95 (SRP)
**REQUIREMENTS:** PowerPC 100MHz 603 (minimum), G3 (recommended), System 7.5.3 or later, CD-ROM drive, QuickTime 4.0

FIND MVP 1.0 on The Disc.

With its ideal size/quality ratio, MP3 audio has become the de facto standard in the computer music industry, but it's not the only option. QDesign has packaged its own proprietary alternative digital audio format with MVP 1.0, its first-generation player and encoder for audio and video formats, including MP3 and its own Qdesign. The company's claim that its format offers superior audio quality at a smaller file size than MP3 could mean a new solution for Internet bandwidth problems.

As a player, MVP gets high marks for its ability to play many kinds of files, including MP3, AIFF, WAV, CD audio, and even QuickTime video. You can drag and drop files and sequence them in the Playlist window. One quirk occurs when you launch the program with a CD in the drive. MVP tries to access the CDDB server (an Internet-based database of a gazillion audio CDs) to download a CD song listing. You can turn this option off in Preferences if you're not already connected to the Internet.

As an encoder, MVP offers you the choice of compressing in standard MP3 format or in QDesign's proprietary format.

MVP CAN EVEN play QuickTime.

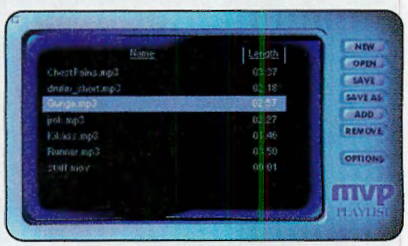
MVP'S MAIN CONTROL MODULE sports a CD-player–style interface.

Of course, compression is attractive in *any* format. A 4-minute, 16-bit, 44.1kHz (stereo and CD-quality), uncompressed audio file is approximately 45MB. Compress it using an MP3 encoder like MVP, and you can shrink that baby down to about 4MB while nearly retaining the original's sonic integrity. This is typical of a 128 Kbps (kilobytes per second) setting or bit rate.

MP3 and QDesign encoders achieve this by taking redundant audio frequencies and discarding them—this is similar to how the graphic JPEG format works. Both audio formats achieve smaller bit rates by discarding more information from the audio file. Although this further reduces file size, it also degrades audio quality. Therefore, it's important to determine the best setting for your purposes when compressing an audio file into MP3 or QDesign formats. To retain as much of the original quality as possible, encode at a faster bit rate (128 Kbps or higher). If size is more important than quality, then you'll need a slower bit rate.

The compression rates available for MVP's MP3 encoder range from 64 to 192 Kbps. The QDesign music encoder ranges from 24 to 128 Kbps. Encoding in MP3 format is fairly quick, and the difference between various sample rates doesn't affect encoding time much. However, QDesign took much longer than MP3 to encode.

We encoded various styles of music from audio CDs to test the difference in quality between MP3 and QDesign music encoders. We compared the two encoders at 128- and 64-Kbps settings and toyed with QDesign's 24-Kbps music setting—a very low bit rate suitable only for specific, very size-conscious circumstances. When compared to the original audio, the quality



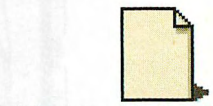

ENCODE AUDIO CDs to MP3 and QDesign format.

of the file encoded at 128 Kbps in MP3 is generally acceptable, except for certain high frequencies (such as hi-hat cymbals), which begin to sound warbly. QDesign adds some harmonic overtones to the high-end frequencies to counter this effect, although comparing the two formats yields a fairly equal rating. The high-frequency artifacts seem less noticeable with classical and jazz vocal styles—especially with QDesign's music encoder.

Between the 64-Kbps versions of MP3 and QDesign, QDesign is the hands-down winner. We don't know what its engineers did, but the quality of the QDesign format is definitely cleaner and clearer than its MP3 equivalent.

MVP 1.0 is a very useful product, but has some bugs to work out. It can only encode from CD audio and does not support variable bit rate encoding. So is the QDesign Music format the MP3 killer of the new millennium? Probably not, but we don't think it's meant to be. It *is* an alternative, however. Judging from 1.0's stability and quality, we can only expect more good things to come from QDesign in the future.—*Andrew Tokuda*

**GOOD NEWS:** Concise design. High quality at low bit rates.
**BAD NEWS:** Encodes CD audio only. Does not support variable bit rate.



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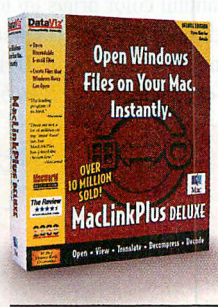


Is it a critical spreadsheet file? Is it a photo of your cousins at the Grand Canyon? Who knows? Certainly not you...because you can double-click it 'til your finger falls off, but it just won't open. Why? Maybe it originated on a Windows® machine, or was compressed, or was created with a program you don't own. Whatever the case, you need *MacLinkPlus Deluxe 11*. Over 10 million users already rely on it to open, decompress, and convert documents. So when a file arrives on your Mac, you double-click it, it opens. End of story.

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# reviews

## Olympus D-450 Zoom

**HARDWARE**

**COMPANY:** Olympus America
**CONTACT:** 800-347-4027 or 516-844-5000, http://www.olympus.com
**PRICE:** $499 (SRP), $435 (street)
**REQUIREMENTS:** Mac 68040 or faster with serial port, System 7.5 or later, 24MB of RAM, 45MB of free hard disk space, CD-ROM drive; USB for CameraMate adapter ($80, not required)

PHOTO COURTESY OF OLYMPUS

**COLOR SNAPS ARE EASY with the Olympus D-450 Zoom.**

The Olympus D-450 Zoom's many premium features come together in just the right mix to make this 1.3-megapixel digicam a fine point-and-shoot device at a very affordable price. It's a well balanced, good-looking, easy-to-use camera that takes great pictures.

Just slip in four batteries, slide the lens cover to one side, and the 35mm-to-105mm optical zoom lens emerges smoothly. You can change its field of view easily with a light touch on a toggle switch near the shutter release button. There's also a top-deck LCD control panel that displays critical settings—flash, battery condition, resolution, picture capacity, sensitivity to light (ISO), and more. You can choose ISO settings of 160, 320, or 640, or you can let the camera decide based on actual lighting conditions. Neat! Be prepared, though, to accept grainier (technically speaking, noisier) pictures at higher ISO settings; still, you'll be able to take pictures under marginal light conditions or shoot stop action with faster shutter speeds. If action's your game, you can use the camera's unique sequence mode, which clicks off images at rates from two frames per second (low resolution) to one frame every two seconds (high resolution).

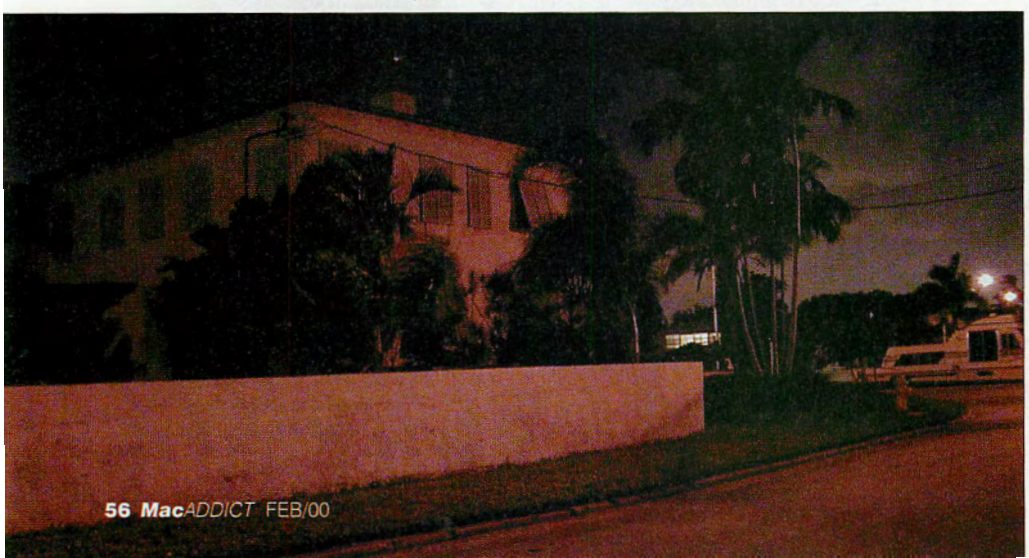
Clearly marked control buttons perform dual functions, depending on whether you have the camera set to Record or Playback mode. You can choose resolution, flash modes, self-timer, multiple picture display, delete, and two manual distances for shooting fast-moving subjects autofocus can't handle. Quickly access the camera's Playback mode with a couple of taps on a button, bringing exposed images up for review at 4- or 5-second intervals; simply double-press it again and you're back in Record. Unlike some digicams, it doesn't let you erase photos immediately after taking them; you must delete them in Playback. This failsafe method ensures that you don't mistakenly send one of those priceless images into deep space.

You can adjust the D-450 Zoom's optical viewfinder and easily view the exceptionally bright Thin Film Transistor monitor from off-center. Want to see if you've captured adequate detail? Just use the zoom control on Playback to get a 3X view of any part of the image. Other goodies include video out, a slide-show function, the ability to print directly to an Olympus printer, and a 2X digital zoom that doubles the telephoto length of the lens to 210mm. Remember, though—with digital zoom, you lose some resolution, so use this option sparingly. The feature works best for small prints or photos headed for the Web.

The only major annoyance is that some of the menu screens display icons only—no words. However, after inadvertently trashing our first batch of pictures, we quickly learned what each symbol meant. You will, too. Be careful not to slam the lens cover shut too fast, or it may hit the lens as it retracts.

If you're looking for a quality digicam that gives you beautiful color prints up to 8 by 10 inches, and you don't need (or want) a lot of manual controls, the Olympus D-450 Zoom is a super choice.—*Arthur Bleich*

**THE OLYMPUS D-450 ZOOM has excellent low-light and white-balance capabilities. We took this detailed photo at midnight in a light wind, with only the illumination of one orange street lamp—handheld at half a second, with an f-2.8, ISO set to 640, white balance set to Tungsten.**



**GOOD NEWS:** Very solidly built. Fast learning curve. Short intervals between shots. Excellent low-light performance. Good controls layout. Uncompressed TIFF mode. Printed documentation.
**BAD NEWS:** No USB. No lens barrel threads to accept accessory lenses. Some menus use icons only. Cover may hit lens if closed too quickly. Incorrect exposure compensation instructions in manual.

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# reviews

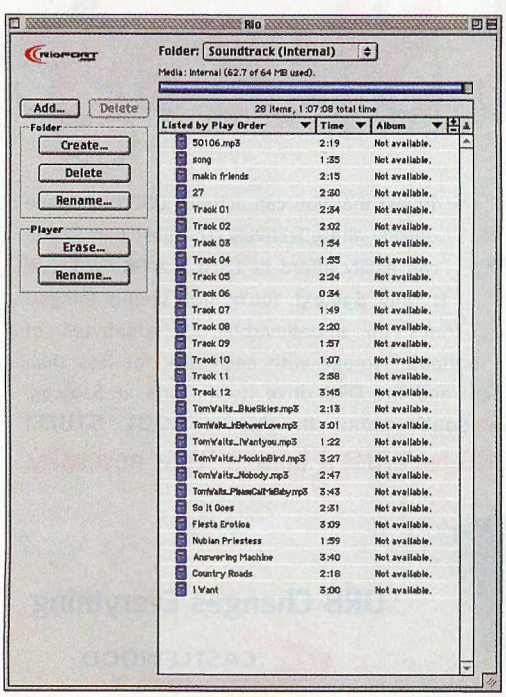
## Rio 500

**HARDWARE**

**COMPANY:** Diamond Multimedia Systems
**CONTACT:** 800-468-5846 or 408-325-7000, http://www.diamondmm.com
**PRICE:** $269.95 (street)
**REQUIREMENTS:** iMac, G3, or G4 (with USB), OS 8.1 or later

Many Mac-ophiles would dismiss the almost year-long wait for portable MP3 players with Mac connectivity as second-class treatment for Mac users. We, however, choose to look on the bright side. While at the moment Mac users have only one choice—Diamond Multimedia's Rio 500—it's one of the first purchase-worthy players to hit the market, and it competes well against MP3 players for any platform.

THE LIMITED VERSION OF SOUNDJAM that comes with the Rio 500 offers only this one special skin and puts a limit on CD-to-MP3 conversions.




JUST ADD YOUR MP3 files to this special playlist, and they upload to your fancy new walkman.

The Rio 500 is a walkman-like, USB-only device you plug into your Mac to download MP3s and play them back on the go. If you're wondering what MP3 is, it's a small (well, *relatively* small), yet high-quality music file format. Software programs such as Casady and Greene's SoundJam (http://www.soundjam.com) and QDesign's MVP (http://www.qdesign.com) can play MP3 music files on your Mac and can even convert songs from your CDs to MP3. Because these files are so small (3MB to 4MB a song), you can easily upload and download them from the Internet. This constitutes a music revolution potentially spawning all sorts of piracy and litigation, glee and terror.

The Rio 500's built-in 64MB of memory is twice that of its PC-only predecessor (the Rio PMP300), making it more deserving of its $269.95 price. Okay, it's still a little expensive, but the gadget is pretty dang cool, and in theory you get a lot of free music in return. Plus, if you're really Daddy Warbucks, you can snap up a bunch of 32MB Smart Media flash cards and swap them in and out like $100 cassettes.

For loading MP3s to and from your Mac, Diamond includes a limited version of Casady and Greene's SoundJam with the Rio 500. SoundJam (at least in its most recent revisions) detects whether the Rio is connected to your Mac and, if it is, calls up an editable playlist window showing the contents of your Rio 500. Simply drag MP3s onto the playlist to copy them directly to the Rio. You can even set up file folders on the Rio, arranging music by genre, artist, or personal preference. If you already own SoundJam, just update it to the newest version, and you should have Rio 500 support built right in.

PHOTOGRAPH BY AARON LAUER

THE RIO 500 PORTABLE MP3 PLAYER—smaller than a pager and way more expensive.

The only complaints we have about the Rio 500 (aside from the still-suspect memory capacity) are its lame little earphones and its inexplicable inability to play a few MP3s (even though SoundJam could handle them).

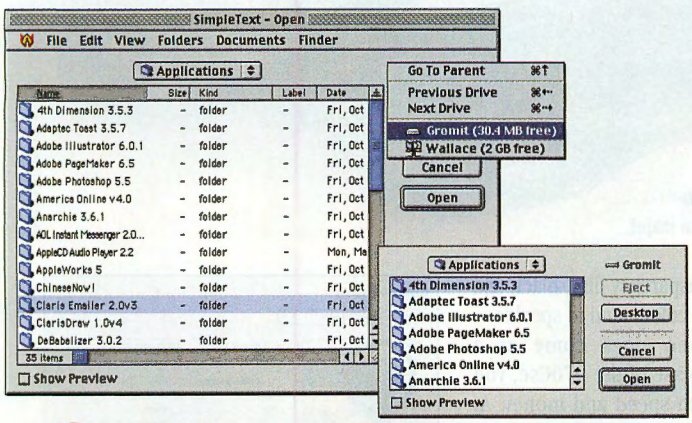
If you're into music, the Rio 500 is a pretty cool device. It has no moving parts, so it won't skip under strenuous circumstances; it comes in flashy clear cases (as well as flat gray); and it's easy to use. It's pricey to the point of impracticality for anyone on a budget, and we don't recommend buying one if you don't have an iMac, G3, or G4—but if you have the hardware and you think having a portable MP3 player would be pretty cool...well, it is.—*Robert Capps*

**GOOD NEWS:** Compact. Loads MP3s easily and smoothly through USB. No skipping. High-quality sound.
**BAD NEWS:** Expensive. Additional memory even more expensive. Inexplicably couldn't play a few MP3s. Cheesy headphones.

# Action Files 1.5.1

**UTILITY**

**COMPANY:** Power On Software
**CONTACT:** 800-344-9160 or 330-735-3116, http://www.actionutilities.com
**PRICE:** $39.95 (SRP); $29.95, download without printed documentation
**REQUIREMENTS:** 68020 or faster Mac, System 7.5 or later, 6MB of RAM, 1MB of free hard disk space, 256-color monitor




Once in a blue moon, we find a utility so useful it's a wonder Apple doesn't incorporate it into the Mac OS. Action Files is one such program. This simple control panel has always added productivity-enhancing features to standard Open and Save dialog boxes, and the latest release adds extensive support for Navigation Services (the new-style dialog boxes introduced in Mac OS 8.5). You can move old- and new-style Open and Save dialog boxes (see what's behind the box), resize them (display longer lists), customize them (add columns for new file attributes), and sort them on any criterion (find files faster).

**FIND A TRIAL of Action Files 1.5.1 on The Disc.**

The Action Files bar at the top of the dialog box provides access to a host of other useful features, allowing you to create new folders; make aliases; get info; and rename, duplicate, trash, or search for files. The Folders and Documents menus contain favorite and recently used items, so you always have instant access to what you want. Action Files now shares the recent/favorites database with Action Menus (*Reviews*, Jan/00, p59), another great tool from Power On Software. Finally, if you have multiple volumes, you'll appreciate Action Files' ability to move to the previous or next drive through either a menu choice or a quick keyboard shortcut.

**WHY SETTLE FOR SMALL, BORING Open and Save dialog boxes when Action Files can make them large and feature rich?**

Install Action Files, and you'll spend less time working around the shortcomings of the Mac OS and more time actually *working*.—*Owen W. Linzmayer*

**GOOD NEWS:** Boosts productivity. Adds much-needed features to Open and Save dialog boxes. Supports Navigation Services. Mac OS 9 compatible.
**BAD NEWS:** Apple hasn't made these features standard in its OS.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# DeskJet 970Cse

**HARDWARE**

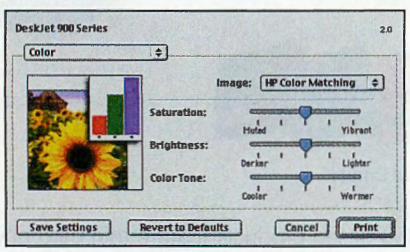
**COMPANY:** Hewlett-Packard
**CONTACT:** 800-613-2222 or 650-857-1501, http://www.hp.com
**PRICE:** $399 (SRP)
**REQUIREMENTS:** USB-equipped Macintosh

THE HP DESKJET 970Cse delivers photo-realistic printing on an inkjet.

PHOTOGRAPH BY AARON LAUER

As computers, games, and technology advance, companies are striving to provide consumers with an experience that's closer to real life. In the case of games, the focus is on realistic graphics and sound. With printers, it's photo-realistic printing quality. On that level, the HP DeskJet 970Cse comes close to delivering.

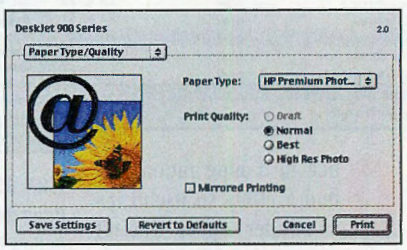
The 970Cse produced impressive images. At 2400 by 1200 dpi, a photo printed on the 970Cse was as close to photo-lab quality as a printer can get. Vivid colors captured the original's vibrancy and subtlety with little to no banding—a problem plaguing a number of inkjet printers. Paper quality significantly affects print output. Cheap, plain paper yielded some text feathering, a problem solved by using HP's higher quality bright-white paper. On transparency film, black text prints flawlessly, but colors tend to speckle.




THE COLOR MENU allows you to choose whether to print in gray scale, black and white, or color.

Quality, however, does come at a price—and in the case of the 970Cse, you pay in terms of both speed and money. At $399, it costs more than twice as much as some inkjets, and the print speed ranges from slow to average. For instance, a Microsoft Word document printed in black and white at normal quality resulted in an average speed of 4 pages per minute—even though HP boasts of rates up to 6.5 ppm. Printed in draft mode, the speed improved to 6 ppm—again, a far cry from the rate of up to 12 ppm HP touts. Full-page graphics took an average of 4 to 5 minutes. One more annoyance: HP does not include a USB cable.

One intriguing feature of the 970Cse is an attachment allowing you to print with both sides of a page (see "Printing Green"). In the Print Options menu, select Layout and click the Double-Sided Printing option. The ample Print Options menu also lets you specify paper type, print quality, and whether to print in color, gray scale, or black and white.




FOR OPTIMAL PRINT QUALITY, select the paper type you are using.

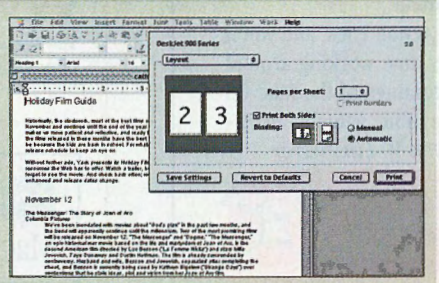
An added bonus: You can network the 970Cse via an external print server and connect any AppleTalk-equipped Mac to it. This solution gets a bit pricey, though—a server such as the HP JetDirect 300X costs approximately $250, and with print speeds of just 4 ppm, the 970Cse may not be the best network solution.

The DeskJet 970Cse is a superb machine. If you print a lot of color graphics and you're willing to spend more to get more, it's a great investment.—*Cathy Lu*

GOOD NEWS: Near–photo-quality printing. Double-sided printing capability eliminates paper waste.
BAD NEWS: Slow-to-average speed doesn't match HP's claims. A bit pricey for an inkjet. USB cable not included.

## Printing Green

The 970Cse attachment for double-sided printing saves trees, not time. It works by passing a printed document back through the 970Cse and printing on the reverse side of the sheet. Environmentalists will be happy. Busy people won't. Feeding the paper back through the machine slows print speeds considerably. In our tests, a Microsoft Word document set to normal quality printed at a disappointing 2.2 ppm with double-sided printing—almost twice as slow as the 4 ppm we got with single-sided printing. Still, it's a nice option and a useful way to conserve paper.




TO PRINT A DOCUMENT ON TWO SIDES, simply go into the Layout Options menu and select the double-sided printing option.

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# Canon MultiPass C635

**HARDWARE**

**COMPANY:** Canon
**CONTACT:** 800-652-2666, http://www.usa.canon.com
**PRICE:** $379 (SRP)
**REQUIREMENTS:** iMac or Power Macintosh with USB, Mac OS 8.1 or later, 32MB of RAM, 30MB of free hard disk space, 2X CD-ROM drive

PHOTOGRAPH BY AARON LAUER

PRINT, SCAN, FAX, AND COPY with the new USB MultiPass C635 from Canon.

If you're a small-office or home-office user and you need to fax, copy, scan, and print, Canon's MultiPass C635 offers an excellent, all-in-one USB solution likely to address your needs. It's a quality color printer, color scanner, and fax machine that ships with great software and retails for a very reasonable price.

Setting up the C635 is easy. Once you unpack it and install the ink cartridge, just run the software installer and plug the device in. Canon uses PowerPrint drivers from InfoWave to control printing on the MultiPass, so you get rock-solid printing performance with tried-and-true technology.

The MultiPass C635 is primarily a color bubblejet printer, so the text isn't quite as crisp as the output from a laser printer. But with a resolution of 720 by 360 dpi on good-quality paper stock, there was no ink smearing or bleeding, and the text looked great. The printer can output up to 6.5 ppm in black and white and 2.5 ppm in color. For highly detailed color prints, however, it often took a minute or longer to finish.

Color prints of photo-quality images were crisp, with sharp edges between colors and no evidence of banding (areas where color grades look like steps on a color chart). Flesh tones also reproduced well. The C635 fails where most bubblejet printers fall short, in saturation. Deep blacks, blues, and reds tend to either wash out a bit or lose the density of the original colors. Still, compared to other color bubblejets, the C635 has good color fidelity.

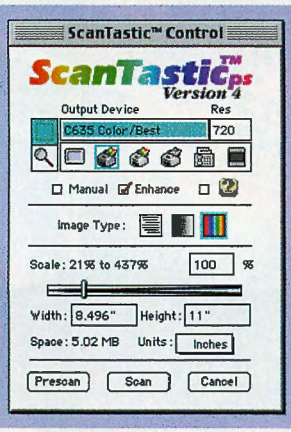
As a fax machine, the C635 works pretty much as you would expect. Run your telephone line to the phone-out jack and you're ready to go. The C635 is a plain-paper fax, so incoming pages read clearly. The unit's 203-by-196-dpi fine resolution reproduces pages well, and the fax memory can hold up to 42 pages.

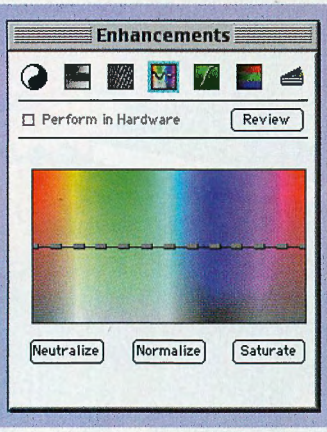
Color copying offers nearly the same quality as color printing. As a printer, the C635 outputs at 720 by 360 dpi; as a copier, the unit's resolution is lower—360 by 360 dpi. Despite the lower resolution, color copies still look good, with excellent flesh tones and lots of detail. Photo-quality images, such as a copy of a magazine photo spread, have the same saturation problems you get with color printing, and sharp differences between colors are just slightly fuzzier.

The most surprising feature of the MultiPass C635 is its color scanning. You can scan from the unit either through the included ScanTastic application (see the images below) or through an Adobe Photoshop plug-in. As a scanner, the C635 has a computer-enhanced resolution of 600 dpi and can scan in 24-bit color. Scan quality was slightly above average for low-end scanners. The best part about the C635's scanning capabilities, though, was its batch scanning. You can load up to 30 pages into the feeder and scan them all.

To round out the feature set, the C635 can print to envelopes, glossy photo paper, glossy 4 by 6 photo cards, high-gloss photo film, transparencies, and T-shirt transfers.

Multifunction devices have the potential to be mediocre at every task without excelling at any. That's not true of the MultiPass C635. If you're looking for an all-in-one solution and you have a USB-equipped Mac, the MultiPass C635 is an excellent solution.—*Rick Sanchez*




USE SCANTASTIC to improve scanned images. Options like the Spectral Equalizer let you enhance a particular color range.

**GOOD NEWS:** Crisp output. Good-quality scanning. All-in-one solution.
**BAD NEWS:** Poor saturated-color reproduction. A manual switch for envelope thickness.

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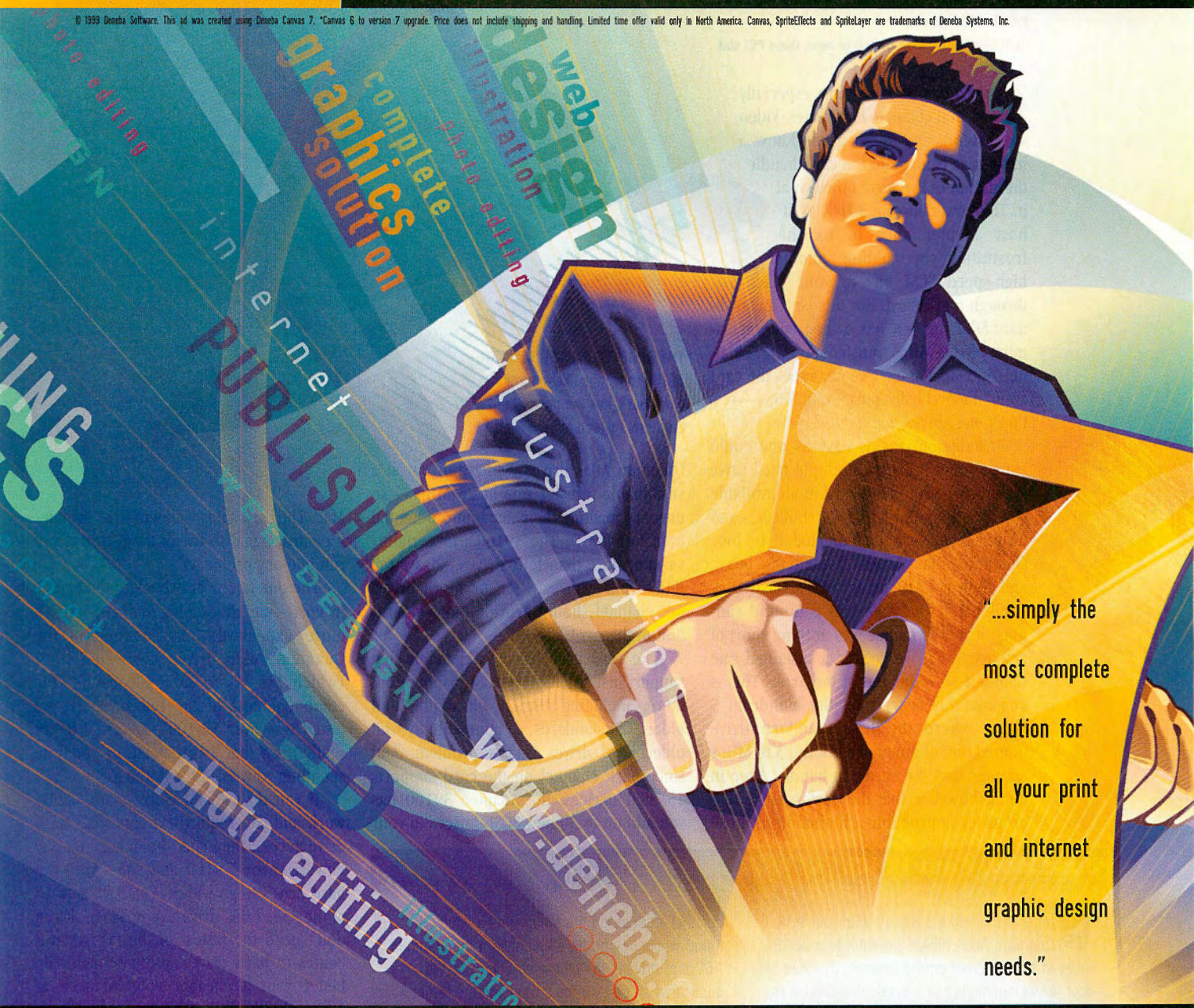


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# PowerDomain 39160

**HARDWARE**

**COMPANY:** Adaptec
**CONTACT:** 408-945-8600, http://www.adaptec.com
**PRICE:** $550 (street)
**REQUIREMENTS:** Mac OS 8.6 or later, Open PCI slot

PHOTOGRAPH BY AARON LAUER

THE ADAPTEC POWERDOMAIN 39160 may look like an ordinary PCI card, but it has the power to bring incredible hard drive speed to your Mac.

Speed can be everything, especially when it comes to hard drives. Video editors and audio gurus know a hard drive is no good if it can't handle the stream of live media thrown at it. The PowerDomain 39160 SCSI host adapter aims to fix the frustration by adding another high-speed SCSI bus to your Mac through a PCI card. But this isn't any ordinary SCSI bus—it has a theoretical maximum of 160-MBps transfer speed per channel. And since it has two channels, the card could theoretically push 320 MBps—yes, that's *megabytes per second.*

Installation was as easy as one could expect for a PCI card/multiple hard drive combo. We seated the card in an available slot in a blue-and-white G3 (both 32- and 64-bit slots work), connected it to four Quantum Atlas drives, booted the beast, and built a RAID using FWB's Hard Disk Toolkit 3.0. Once we had it up and running, its performance was nothing short of jaw dropping. We coaxed a sustained rate of about 30 MBps out of the array. This is considerably faster than the humdrum 5 MBps where the G3's standard drive topped out, although it's not the 320 MBps Adaptec says the card can handle. Keep in mind, however, that the performance discrepancy is probably a limitation of those Quantum Atlas drives, which top out at a sustainable transfer rate of 26 MBps—so they are pushing their maximum potential even in a RAID. The 39160 can certainly sustain more than four drives, so a large RAID built with, say, ten or more drives per channel should provide more saturation of the card.

The card itself has two channels that support just about every SCSI protocol out there, including Ultra2, UltraWide, and older SCSI standards, so compatibility with older hard drives isn't a problem. And since each channel on the card supports 15 SCSI devices, the Adaptec 39160 lets you add up to 30 new SCSI devices to your Mac. The card ships with a CD that includes a control panel to tweak the 39160 if you run into any problems.

The one major drawback to the card is its cost—and that's a big one. At $550, it's more expensive than any one of the Quantum Atlas drives connected to it (which list at around $400 each). The combined cost of the four-drive rig we tested was over $2,100—so you'd better really *need* that extra speed, or you'll be spending your cash for nothing.

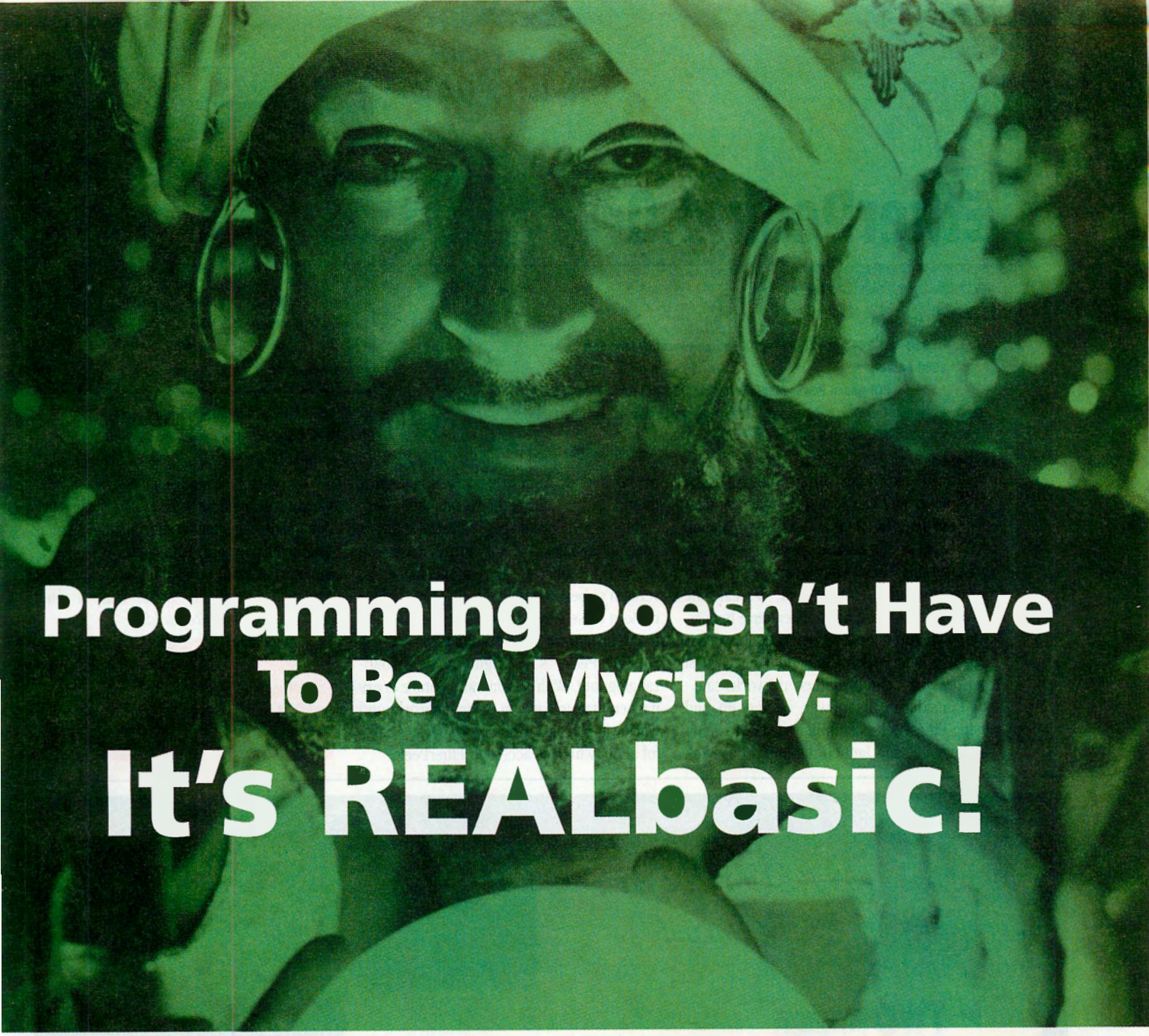
If you do a lot of video and/or audio work and you require extremely fast hard drive access, then sink the money into the PowerDomain 39160 and some very fast hard drives to go with it. You'll be amazed at the speed this drive can produce. If you don't need the fastest of the fast when it comes to hard drives, you'd probably do better with a cheaper solution such as Adaptec's 2940U2W SCSI card, which costs hundreds less.—*David Reynolds*

## Just How Fast Is It?

We benchmarked the 39160 with four 9GB Quantum Atlas drives striped into a 36GB array in two different configurations: One had all four drives connected to a single channel on the SCSI card, and the other had two drives on one channel and two on the other. Here's what we found when we compared them with the standard ATA hard drive in the blue-and-white G3. We duplicated an 887MB file on the volume to get a sense of relative speed.

| | |
|---|---|
| Standard Blue-and-White G3 | 172.8 seconds |
| With the 31960 in a Single-Channel RAID | 34.1 seconds |
| With the 31960 in a Dual-Channel RAID | 29.6 seconds |

GOOD NEWS: Unholy speed. Easy setup. BAD NEWS: You may require a home equity loan to buy the card and to equip your Mac with enough drives to get the most out of it.



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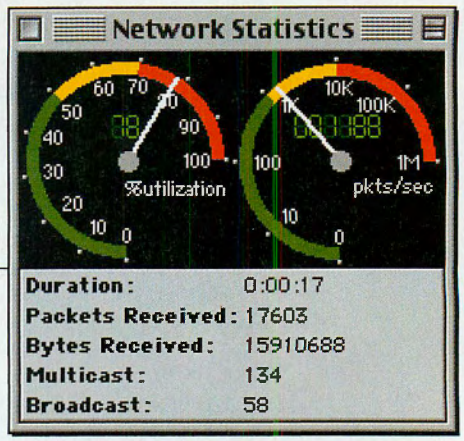
**CONTACT:** 800-466-2447 or 925-937-7900, http://www.etherpeek.com
**PRICE:** $900 (street)
**REQUIREMENTS:** PCI-based Power Macintosh, Mac OS 8 or later, 32MB of RAM, EtherPeek-supported Ethernet interface (see http://www.aggroup.com/interfaces for a list of supported PC and PCI cards)




SPEED FREAKS will feel right at home with EtherPeek's speedometer-like network traffic meters.

EtherPeek is an application of such power and clarity that we Mac aficionados have to sit up and applaud. Version 4.0 is a one-of-a-kind revision—adding great features such as advanced filters; report generation in HTML format; a real-time monitor mode; and multiple capture buffers, windows, and filters. Network administrators can use EtherPeek to find bottlenecks, test performance, and keep their networks safe.

Considering its power, setting up and using EtherPeek is simplicity itself. Just run the installer and launch the app. EtherPeek begins happily capturing packets, analyzing them, and sending them on their way. Setting up complicated logical filters for specific packets is also relatively easy with EtherPeek's filtering system, perhaps this version's best new feature. The toolbar ranks a close second, giving you easy access to the program's deepest functions.

EtherPeek is a frighteningly broad-ranging tool. With it, you can capture *every* packet that moves on your network and work with the data inside it. So, be *very* careful about who gets access to EtherPeek.

If you run a large or mixed-system network, you need EtherPeek. Its exhaustive diagnostic, filtering, and reporting capabilities are a dream come true for anyone involved in troubleshooting and securing a network. EtherPeek 4.0 is truly a *deep* product.—*David Reynolds*

**GOOD NEWS:** Tremendously powerful. Easy interface. Essential tool for very specific audience.
**BAD NEWS:** Heavy price means you'd better really *need* this tool.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# Keyspan Digital Media Remote

**HARDWARE**

**COMPANY:** Keyspan
**CONTACT:** 510-222-0131, http://www.keyspan.com
**PRICE:** $79 (SRP)
**REQUIREMENTS:** Mac OS 8.5.1 or later, available USB port

**REACH A WHOLE NEW LEVEL of laziness...uh, we mean, efficiency.**

PHOTOGRAPH BY AARON LAUER

We'd call Keyspan's Digital Media Remote a couch potato's dream, except that at our house we used it to control our Mac's CD player during exercise time. Everything about the cute, 1-ounce remote is simple, starting with the concept: The palm-size keypad controls any multimedia application on your USB-equipped Mac.

Installation lives up to the plug-and-play promise of USB. After installing the software from the CD, we simply plugged the receiver unit into our USB port. The remote worked immediately without a hitch, and without any changes to its settings.

From across the room the Digital Media Remote (or DMR, as Keyspan calls it) flawlessly controlled every supported application we threw at it, including Apple's CD Player and QuickTime Player, Casady and Greene's SoundJam MP, a Microsoft PowerPoint slide show, and RealNetworks' RealPlayer. Heck, we even used the thing to select and launch a file from the Finder, though its usefulness in nonmultimedia apps is very limited. Still, if you're a tweaker at heart, you can create settings for any application, assigning one of the Digital Media Remote's 15 keys to control Command-key-triggered action. And its default settings can even control applications it doesn't claim to support. We especially like the star key, which rotates through all open applications.

We wish Keyspan had bundled a USB cable longer than three feet—barely enough to reach the edge of our desk. But hey, why quibble? The Digital Media Remote is a really useful add-on that works exactly as advertised right out of the box.—*Joseph O. Holmes*

**GOOD NEWS:** Plug and play. Works without any tweaking. Cute as a button.
**BAD NEWS:** Needs longer USB cable.


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# power play

We may all lose our jobs this month, but it sure was fun slacking off.

## Sneak Peek—DS9: The Fallen

*Simon & Schuster Takes the Unreal Engine Even Further*

**THAT PHASER FIRE looks cool, but it's gotta hurt—especially that shot to the chest Sisko took. Thanks to Unreal's excellent lighting algorithms, the beams light up their environment and create blast halos. Nice stuff.**

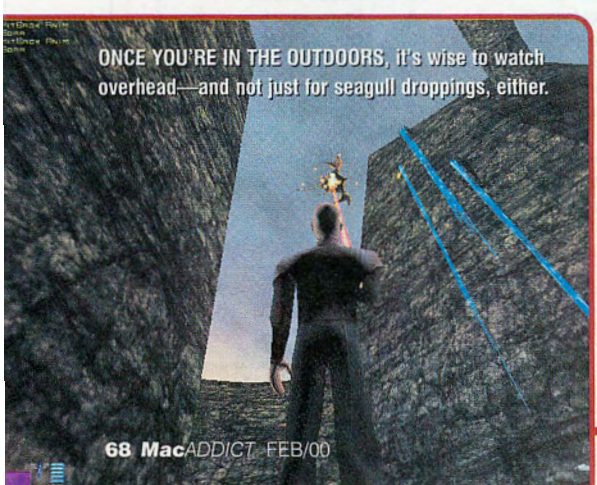
If you know every *Star Trek: Deep Space Nine* episode by heart, you're going to love Star Trek Deep Space Nine: The Fallen (DS9), the upcoming game based on the series. If you're not a *Star Trek* junkie, don't worry—you don't have to watch a single *Deep Space Nine* episode to enjoy DS9. In this third-person shooter (due out this spring from Simon & Schuster, http://www.simonsays.com/interactive), you play one of three Federation characters in a quest to recover a sacred orb. You'll get to explore the Deep Space Nine space station, fight Cardassians, and run around canyons and caves on the planet Bajor.

DS9 is based on the Unreal Tournament engine, but the game offers much you won't find in Unreal. To immerse players in the game, DS9 features a third-person perspective (Unreal Tournament is a first-person game). It's sort of like Tomb Raider, but without the annoying camera problems. Instead, DS9 features a custom "soft camera" system. Using this system, the camera travels along defined paths, allowing game designers to create cinematic effects. Instead of getting stuck against the wall, the character's head becomes transparent, allowing the camera to stay in the proper position without obscuring your view of what's happening.

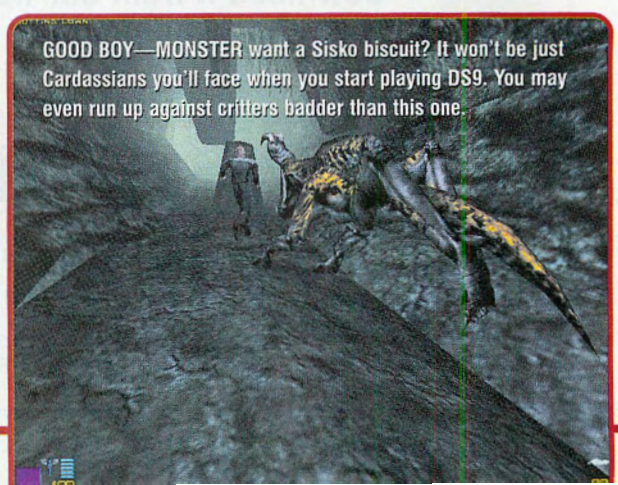
Also new in this game is its inverse kinematics (IK) system, which gives characters a skeleton. This feature makes for exceptionally realistic movement and two-handed weapon action. The IK system is unique to DS9—you won't find this type of detail in Unreal.

One other difference between Unreal Tournament and DS9—and this is important—is that you can play the game from three different perspectives: that of Klingon Lieutenant Commander Worf, that of Bajoran Colonel Kira Nerys, or that of Starfleet Captain Sisko. The game's objectives, maps, and weapons change based on the character you choose. This makes the game readily replayable.

Development of DS9 started in the summer of 1998, and it's slated for a simultaneous Mac and PC release in the spring. As this is written, the developers are waiting to finalize the Unreal Tournament code before continuing their work. Currently, the Mac Unreal code is about a month behind the PC version.—*DR*



**ONCE YOU'RE IN THE OUTDOORS, it's wise to watch overhead—and not just for seagull droppings, either.**



**GOOD BOY—MONSTER want a Sisko biscuit? It won't be just Cardassians you'll face when you start playing DS9. You may even run up against critters badder than this one.**

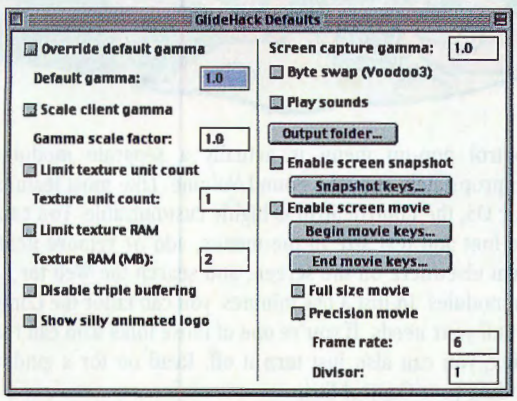
# About the Collective

The folks building the actual DS9 game are an interesting bunch in their own right. The Collective (a band of experienced game developers with many years of experience) was looking for something other than typical U.S. corporate life, so they set up their own shop. Strangely enough, the group's name didn't come from the Borg in Star Trek. Instead, the developers decided on the name because "collective" denotes a tight pooling of knowledge and effort—vital to the development of a good game, in their eyes.

Their take on the current state of Mac gaming? "It's looking good," Doug Hare of The Collective said. "It's one of those things that thankfully Apple has found its direction with again." The products (G4 and iMac) are compelling, and faceless anonymity is not a problem.

DS9 isn't the only thing to come out of The Collective. The group also has Aeon Flux, Men in Black, and The Game of Life in its roster. Simon & Schuster is publishing DS9.—*DR*

# GlideHack




**GLIDEHACK HAS ALL KINDS of useful tweaks for your 3dfx card, including gamma settings and other twiddles.**

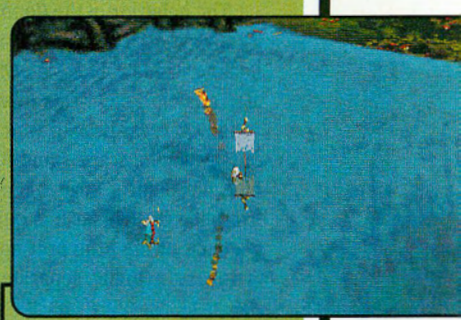
Bo Lindberg developed an exceedingly useful freeware hack for 3dfx card users called GlideHack. GlideHack has two major features. First, it tries to handle errors gracefully. If a 3dfx game hits an error and dies, GlideHack attempts to return to your normal 2D display so that you can handle the crash. Second, it lets you take screen shots and save movies from your 3dfx games—a handy tool, since not all 3dfx games have this capability built in, and normal methods just don't work.

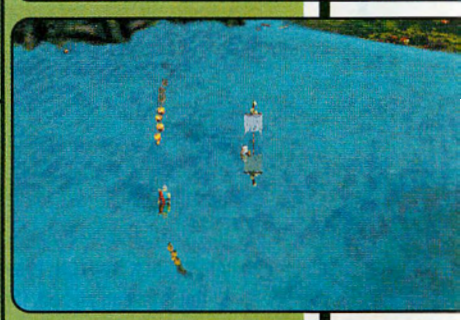
GlideHack mediates between the Glide library and the hardware that uses it. Installing GlideHack is simple. Just drop the GlideHackLib file onto the System Folder, and your Mac will route it to your Extensions folder. Configuring GlideHack is just as easy. Run the GlideHack Setup application, make your changes to the utility's settings, and you're good to go. Visit Bo's Web site at http://www.student.nada.kth.se/~d88-bli/misc to download GlideHack or to find other handy game utilities.—*DR*

# Screen Shot of the Month

### Artist's Statement

This is a series of three shots. As you can see, this one came right down to the wire. We were in Sudden Death for almost a minute. Natus has one archer who is disturbingly healthy, and Secret Chimp has one pincushioned little Dwarf. Five or six grenades must have hit the water and fizzled before the final humiliation took place. Victory doesn't taste much sweeter than in a network game of Myth! —*Mark Mineant*





**YOU WOULDN'T BELIEVE how difficult it is to get a Molotov cocktail to explode on an archer's head while you're standing in a fetid pool of water, but this guy makes it look easy.**

Send in your fave gaming screen shots to letters@macaddict.com, and we'll publish the best, most awe-inspiring shots as they come along. C'mon, surprise us!

# how to

If you've got the time and the beer, we'll bring the tips and the pretzels.

# Control Your Control Strip

*by Joey Cooper*

EASY

Since 1993, Macs have included a handy little gadget called the Control Strip. The Control Strip is the little bar that normally appears on the bottom left side of the Mac's screen (if you just see a little widget there, click it to extend the bar). It provides quick access to everything from printer selection to monitor resolution settings. It also offers a very convenient way for Apple Remote Access users to connect and disconnect.

The behavior of the Control Strip is somewhat unusual. Although it's always attached to one side of the screen, the Control Strip is a floating window, like Mac OS 8.5's Application Switcher and OS 9's alert dialog boxes. This means it always floats in front of all other windows, regardless of which application is in the foreground (the only exceptions are some full-screen games and applications that hide the Control Strip when they first run). Because it's always in front, the Control Strip is quite a handy little tool.

Each of the little pop-up menus that appear along the Control Strip are actually separate modules. For example, the volume control pop-up menu is actually a separate module named (appropriately enough) Sound Volume. Like most features of the Mac OS, the Control Strip is highly customizable. You can change the font and text size of the menus, add or remove items, place them elsewhere on the screen, and search the Web for new add-on modules. In just a few minutes, you can tailor the Control Strip to suit your needs. If you're one of those folks who can't stand the thing, you can also just turn it off. Read on for a guide to controlling your Control Strip.

ILLUSTRATION BY JON RIVERS

**TOUGH**
This stuff's for the pros.

**TRICKY**
It'll take some effort, but you can do it.

**EASY**
The fundamentals, if you will.

FIND CALCSTRIP 1.4.2, Control Panels 3.3, FM Egg Timer 1.2, and Nivek Control Strips 1.1 on The Disc.

## The Lineup

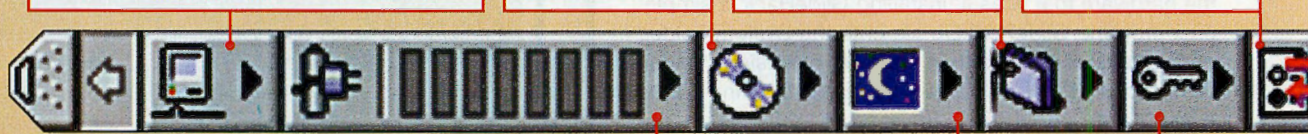
Before we get too involved with tweaking your Control Strip, let's take stock of what's there to begin with. While some modules are self explanatory—such as the Sound Volume pop-up menu—others are a little bewildering, such as the Location Manager's puzzling icon (we know, it makes sense once you know what the icon is for, but it's bewildered many users in its day). Here's the lineup.

**APPLETALK SWITCH:** Provides another way to turn AppleTalk on and off, for a grand total of three methods (you'll also find AppleTalk switches in the Chooser and in the AppleTalk control panel).

**CDSTRIP:** Lets you control playback of audio CDs without opening the CD player.

**FILE SHARING STRIP:** Lets you start and stop File Sharing and tells you who's connected to your machine.

**LOCATION MANAGER CONTROLS:** A necessity if you've got a PowerBook, the Location Manager lets you change a number of settings—the network, printer, extensions, even the time zone if you're a long-distance road warrior.



**THE STANDARD CONTROL STRIP MODULES.** Some only appear when they're appropriate—the Battery Monitor, for example, only shows up in PowerBooks.

**BATTERY MONITOR:** Shows how much battery power you've got left and whether the battery is currently charging.

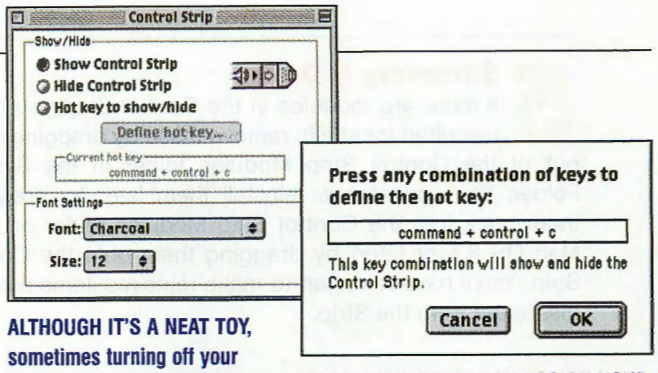
**ENERGY SETUP:** Gives you control of some energy-saving features, including putting the Mac to sleep and spinning down the hard drives.

**KEYCHAIN STRIP:** Locks and unlocks any keychains you've set up in Mac OS 9.

## 1 The Switch and the Key

The Control Strip's control panel is the destination of choice for those who can't stand losing screen real estate. One click on the Hide Control Strip radio button, and the Control Strip is history. If you never want to see it again, you can even save yourself the tiny amount of disk space it takes up by trashing the Control Strip's control panel, its extension, and the Control Strip Modules folder.

Most of us, however, aren't that eager to kill off the Control Strip. If you want to turn it on and off quickly to, say, access an item underneath, use the hot key feature. Click Define Hot Key and choose a a unique key combination. Then just press the keys you've chosen, and the Control Strip will disappear instantly. Press them again, and it will reappear.




ALTHOUGH IT'S A NEAT TOY, sometimes turning off your Control Strip makes life easier.

BE CAREFUL WHEN YOU ASSIGN YOUR hot keys—don't choose a combination the Finder or a favorite application already uses.

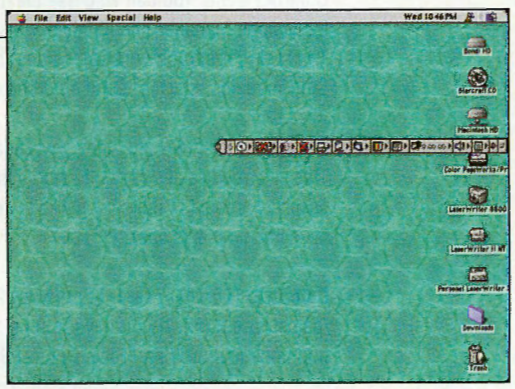
## 2 Add Some Life

As long as you've got the Control Strip's control panel open, let's set a custom font and size for the pop-up menus. By default, the font is the Finder's typical 10-point Geneva, but there's no reason to let that restrict you. If you've long since moved on to some more interesting font elsewhere in the Finder, now is the time to spruce up your Control Strip as well. Just pick the font and size you want to use from the Font and Size pop-up menus.

IF YOU CHOOSE A FONT THIS DIFFICULT TO READ, you'll soon be longing for Geneva 10.

## 3 Custom Placement

Fortunately for those who really want the lower left corner of their screens available, it's very easy to move the Control Strip anywhere along the left or right edges of the screen. To move it, hold down the Option key and drag the end tab.

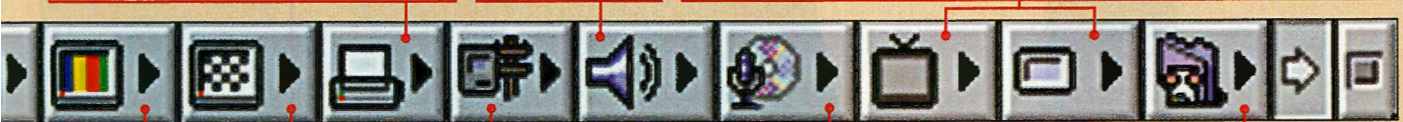


ALTHOUGH YOU CAN PLACE IT ANYWHERE, the Control Strip usually gets in the way if it isn't in a bottom corner.

## 4 More Movement

Using the same Option-drag technique, you can rearrange individual modules within the Control Strip. Move frequently used modules to one side so you don't have to search around when you need them.

MOVE YOUR FAVORITE modules to one end.



PRINTER SELECTOR: If you've got more than one desktop printer set up, this lets you quickly change which one the Mac prints to.

SOUND VOLUME: Adjusts volume.

TV AND VIDEO MIRRORING: Lets you select whether to mirror the main screen's contents to multiple video outputs (either several video cards or an S-video output). Useful when you're setting up for a presentation.

MONITOR BIT DEPTH AND MONITOR RESOLUTION: Lets you quickly change the number of colors and the monitor resolution, respectively.

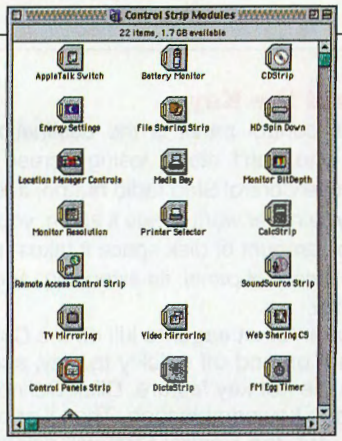
REMOTE ACCESS CONTROL STRIP: Lets you dial out very quickly to a network server if you usually connect using Remote Access.

SOUNDSOURCE STRIP: Lets you select which sound source to use when recording digital sound.

WEB SHARING CS: Turns your Mac's Web server on and off if you're using Web Sharing.

## 5 Slimming It Down

If there are modules in the Control Strip you don't use often (or at all), remove these by dragging them out of the Control Strip Modules folder in the System Folder. You can always reinstall them later by dragging them back into the Control Strip Modules folder or (with Mac OS 8.5 or later) by dragging them onto the Control Strip. You'll have to restart to make removed items actually disappear from the Strip.




**REMEMBER TO RESTART after taking out modules.**

## Bulking It Up

A wealth of third-party Control Strip modules allow you to increase the functionality of your Control Strip. Though many just rewrite Apple's modules, others add cool and useful new features. Here's a sampling of some of the best.

- **Control Panels Strip** (freeware, http://www.pair.com/ammon/skidperfect). This module gives you a pop-up menu listing your Control Panels. You can also use the module as a sort of Extensions Manager Lite: Enable or disable it, move it to the Trash, or get info on your extensions, control panels, Control Strip modules, startup items, and shutdown items.

- **FM Egg Timer** (freeware, http://www.bozos.com/lizardbreath). This nifty module allows you to start a timer that goes off after a specified amount of time. If you like to cook and surf the Web at the same time, this one's for you.

- **CalcStrip** ($5 shareware, http://www.246.ne.jp/~kykz/calcstrip-e.html). If you have trouble solving even the simplest mathematical problems, this Control Strip module can help. It works pretty much like the standard Calculator included in the Apple menu, except that it's much easier to access.

**CALCSTRIP GIVES YOU ACCESS to a calculator without the tedium of switching to and from the desk accessory.**

- **DictaStrip** ($10 shareware, available from http://www.hitsquad.com/smm/programs/DictaStrip). This module is a simple voice-based note taker. Just hold down the Control Strip module's icon, and it starts recording.

- **Nivek Control Strips** ($10 shareware, http://www.kagi.com/nivek). A collection of useful little modules—some are rewritten alternatives to the standard modules, others (like Calendar) are simply handy gadgets.

**Joey Cooper (joey@macaddictreadersclub.com) spends half of his time looking for new Control Strip modules and the other half writing about the Mac. This includes working for sites such as MacMilitia.com and MacAddict Readers Club. Sleep is not a big part of his life right now.**

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how to

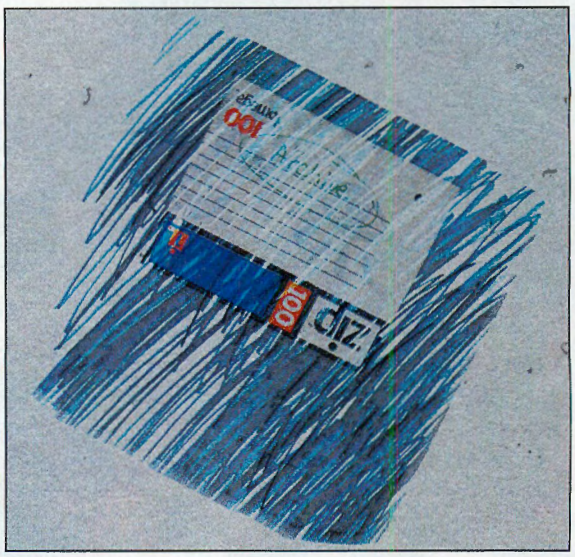
# Sketch with Photoshop

by Ian Sammis

TRICKY

When Macs became powerful enough to handle large 32-bit color graphics, a great deal of interest blossomed in simulating the effects of natural media such as paints and pastels. Most people trying to achieve an organic look have gone in one of two directions: using programs whose tools mimic natural media, or running filters that render a photo as if it had been created by traditional artistic methods.

If you've got a scanner, though, you don't need to use erratic Photoshop filters or fancy programs to simulate natural media. To turn a photograph into a pencil sketch, all you need are Photoshop's transfer modes. The method we're going to demonstrate here is very general, and you can use it to simulate many media, including pastels, crayons, and paints.



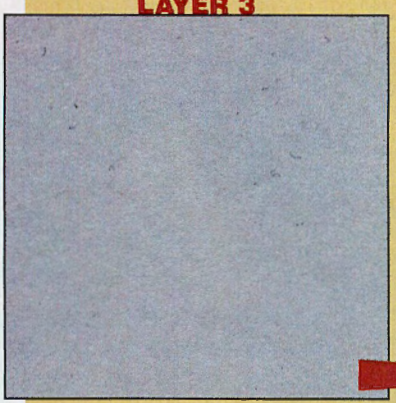
USING PHOTOSHOP'S transfer modes, we can create a pretty convincing pencil sketch.

## Two Parts Texture, One Part Photo

This technique combines three images, layering them with some of Photoshop's lesser-used transfer modes. Our finished image has at least two different textures: one for the pigments of the original photo (of a Zip disk), and one for the drawing surface (in this case, a piece of paper).

Photoshop can combine layers using a wide variety of transfer modes. You'll use two: Color Dodge and Multiply. Color Dodge lightens the base color to reflect the blend color, according to Photoshop. In other words, if the blend channel (the upper layer) is a gray-scale texture, Color Dodge combines the texture from the upper layer and the colors from the lower layer. You'll use Color Dodge to blend pencil strokes with a photo, resulting in what looks like a pencil sketch of your original image. The Multiply transfer mode combines two layers with an algorithm that resembles traditional overprinting (printing one image on top of another)—we'll use it to add a paper texture to our image without overwhelming or lightening the pencil sketch.

LAYER 3



LAYER 2

LAYER 1

TRANSFER MODE: MULTIPLY

TRANSFER MODE: COLOR DODGE

ABOVE THE SKETCH WE ADD a paper texture to give the final image a naturalistic, drawn-on-paper feel.

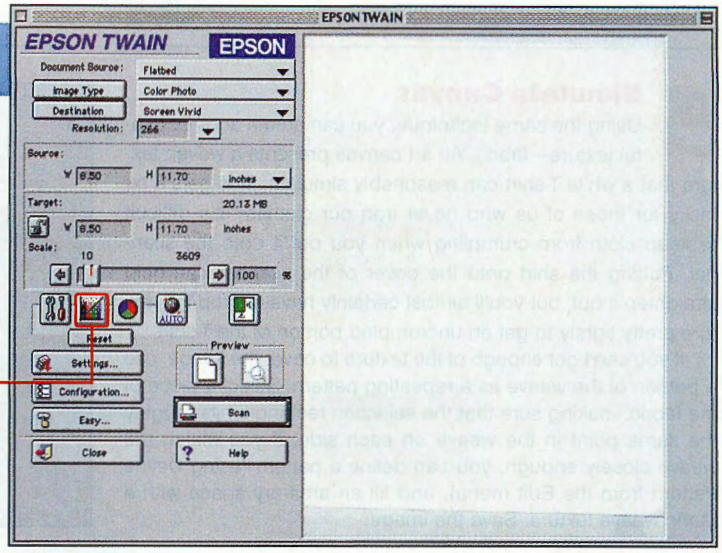
WE'LL TURN THE PHOTO into a sketch with Photoshop's Color Dodge transfer mode. This texture represents the pencil strokes that will define the photo.

DOWN AT THE BASE of the stack of texture layers is the photo we're starting with—in this case, a rather prosaic image of a Zip disk.

# Scan the Textures

## 1 Scan a Blank Piece of Paper

You'll need a scanner to import a few different surface textures. To start off, scan a paper texture. Put a plain piece of typing paper into the scanner and do a prescan. The image will appear completely white—the TWAIN module is generally configured by default to scan darker images than the texture of a piece of paper.

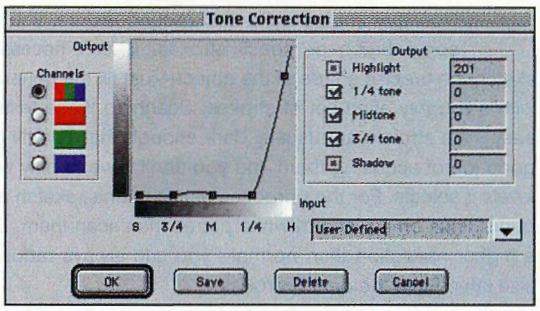



**TWAIN HAS SET THE CONTRAST to emphasize the brightness difference at the bottom of the page. This makes the paper's texture totally invisible.**

## 2 Get the Highlights

The initial contrast setting renders the texture of the paper as a uniform white field. Fortunately, good scanners can read many more levels of gray than the monitor can display. The TWAIN module varies from scanner to scanner, but most scanners give you the option of putting a lot of contrast into the highlights (the bright portions) of your image.

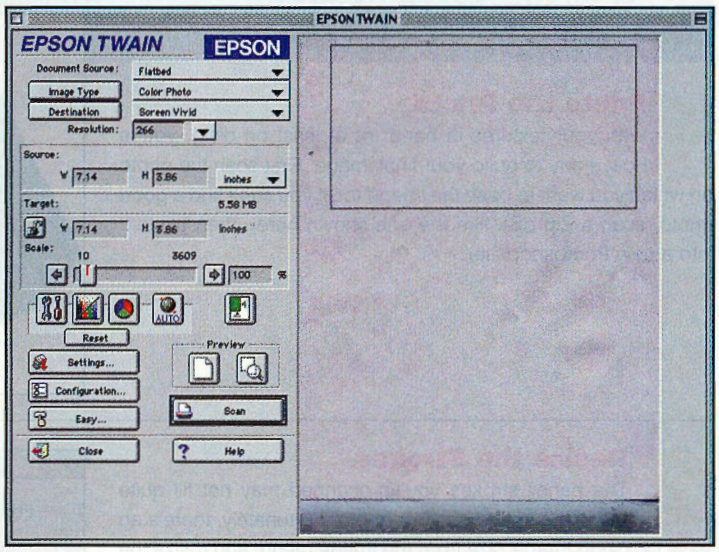
If you've got an Epson scanner like ours, click the Tone Correction button, then pull all but the last handle down to the base of the graph. This tells TWAIN to use the entire range of colors from black to white for the brightest parts of the image, bringing the texture of the paper into sharp relief. You can adjust contrast by changing the Highlight setting. Consult your scanner's manual for instructions specific to your model.




**BY MAPPING ALL BUT THE BRIGHTEST COLORS to black, you can bring out the paper's texture.**

## 3 Omit the Folds

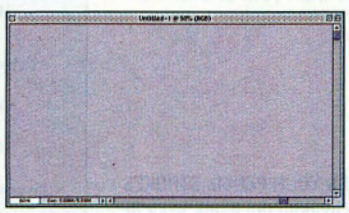
Say the paper you've scanned is slightly crumpled—now that you're looking at its texture, you can clearly see the wrinkles. You don't want these defects in your final image, so you should drag to select an unblemished portion of the paper. Click the Zoom button to make sure the selected area is fold- and crumple-free, then scan it in. (Once again, different scanners have different modules, but they all let you zoom in on a region.)



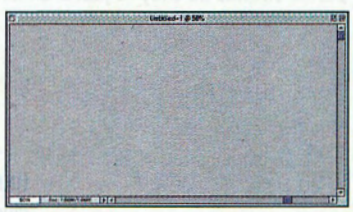

**OBVIOUSLY, THIS PAPER CAME FROM A DISORGANIZED DESK—it's pretty crumpled. You need to omit the wrinkled areas.**

## 4 Fix the Color

Because you've tinkered a lot with the contrast, the paper may have an odd coloration. It doesn't really matter—we're not interested in the color of these layers, only their texture. Choose the Grayscale option from the Mode submenu of Photoshop's Image menu to eliminate the tint. Save this texture—you'll use it later.



**THE PINK HUE OF THE PAPER is probably just a tiny scanner error that the extremely high contrast has thrown into sharp relief.**

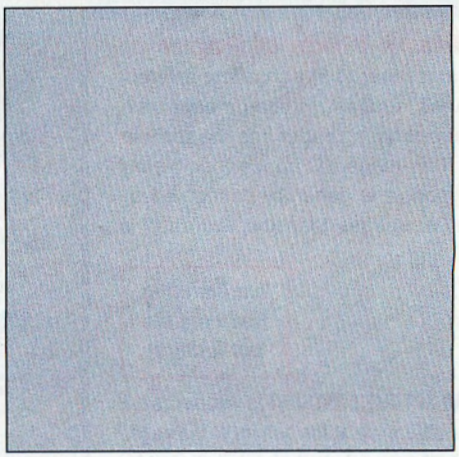


**IN GRAY SCALE, THE ODD COLORING vanishes—you end up with a nice paper texture.**

## 5 Simulate Canvas

Using the same technique, you can create another useful texture—fabric. An art canvas presents a woven texture that a white T-shirt can reasonably simulate. This gets a bit tricky for those of us who never iron our clothes—it's difficult to keep cloth from crumpling when you put it onto the scanner. Putting the shirt onto the cover of the scanner can help straighten it out, but you'll almost certainly have to crop the texture pretty tightly to get an uncrumpled portion of the T-shirt.

If you can't get enough of the texture to cover the image, use a portion of the weave as a repeating pattern. Select a piece of the fabric, making sure that the selection rectangle hits roughly the same point in the weave on each side. If you match the weave closely enough, you can define a pattern (using Define Pattern from the Edit menu), and fill an arbitrary space with a fabric weave texture. Save the image.



THIS SCAN OF A T-SHIRT will work fairly well as a substitute for canvas. Note that you can replicate the repeating pattern of the weave to cover larger areas.

## 6 Get the Strokes

Now that you've got a background texture, you'll need some brush or pencil strokes. It isn't necessary to sketch the precise shape of the object—just fill the general area with a roughly even set of strokes. Scanning these textures is easy—the strokes are usually dark enough that TWAIN does a good job of acquiring them and you don't have to play with the levels it selects. For the purposes of this tutorial, sketch a set of pencil lines on a piece of white paper, then scan them. Do it at a higher resolution than normal—you can always reduce their size later. Save the pencil strokes.

DON'T TRY TO SKETCH IN A SPECIFIC SHAPE—a very general sketch like this will serve for any number of photos.

# Build the Layers

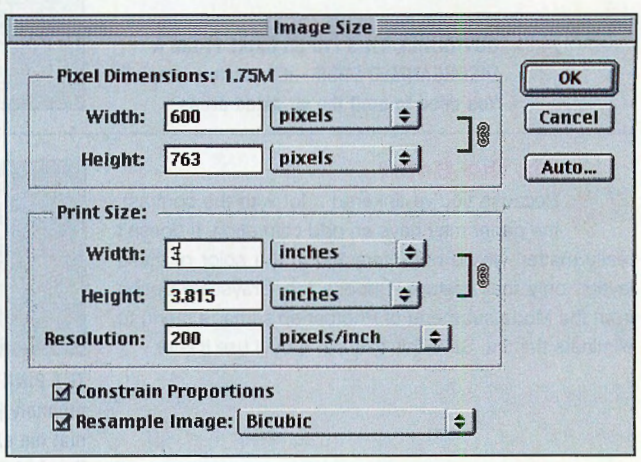
## 1 Paste the Photo

With your textures in hand (or at least on disk), you're now ready to build your final image. First scan the photo on which you want to base the image (or, if you can't find a good photo, scan a Zip disk like the one shown here), then paste it into a new Photoshop file.

THIS ZIP DISK IMAGE could use some flair—let's make a pencil sketch of it.

## 2 Resize the Strokes

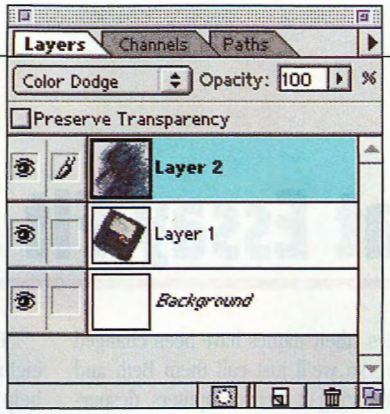
The pencil strokes you've scanned may not fill quite the same space as your photo. Fortunately, there's an easy fix. Go to Image Size from the Image menu, and resize the pencil strokes so they're just a bit larger than your photo.



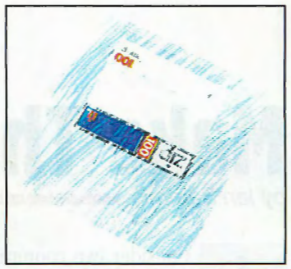

UNLESS YOUR PENCIL STROKES cover exactly the same area as your photo, you'll need to resize them slightly to get them properly lined up.

## 3 Add the Strokes

Now copy your pencil texture and paste it over the photo on a new layer. (Recent versions of Photoshop create a new layer when you paste—if your copy doesn't, you'll have to do that task yourself before pasting.) Set the transfer mode of this layer to Color Dodge. With a gray-scale texture as the top layer, Color Dodge fuses the color of the lower layer with the texture of the upper layer. You should now have a pencil sketch of your photo, but if you didn't make your strokes dark enough, the sketch will look a bit washed out.



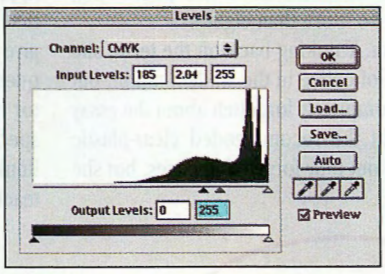

SETTING THE TRANSFER MODE to Color Dodge tells Photoshop to use the Zip disk's colors with the pencil strokes' texture.



BECAUSE THE PENCIL STROKES were fairly light, the image looks faded and too bright.

## 4 Fix the Levels

To fix the too-bright sketch you got in the last step, select Layer 2 in the Layers palette and choose Levels from the Adjust submenu of the Image menu. Once you're in the Levels window, increase the black point (move the black triangle to the right) to darken the image. If your background is too dark, you might have to decrease the gamma (the gray triangle) to keep the area between strokes from darkening too much. With the levels changed, you should have a much better sketch of your photo.



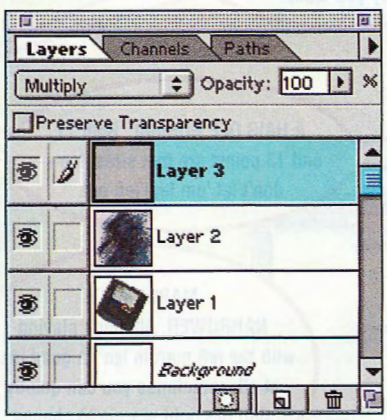

TO DARKEN THE SKETCH, adjust the black-point levels of Layer 2.

THE DARKENED SKETCH looks much better than its predecessor.

## 5 The Background Texture

To add a bit of flair to your sketch, try adding a background texture. Copy your paper or canvas texture (we opted for paper), then paste it into another new layer over the photo and the pencil strokes. Set the transfer mode of the new layer to Multiply. This darkens the sketch with the paper or canvas texture, using it uniformly across sketched and unsketched portions. You should now have a nicely finished pencil sketch of your photo.

THE MULTIPLY TRANSFER MODE forms the geometric mean of the two images. In English, that means it averages them in a way that favors dark pixels.



THE FINAL IMAGE PRESENTS A STRIKING EFFECT, particularly for an image formed without a single filter.

## 6 Try Other Textures and Media

Now that you've got the basic technique down, you can use it to apply a variety of interesting media and textures to your photos. To get you started, here's the same photo rendered as pastel on paper and as crayon on canvas. Have fun!

CHANGING FROM PENCIL TO PASTELS completely changes the character of the sketch, even with the other two layers left almost the same.

TO MAKE THIS IMAGE LOOK A BIT STRANGER, we left the pinkish tinge from the scanner uncorrected.

**Ian Sammis turned his G3's sound off to avoid starting avalanches on his desk.**

# how to

# Make That Essay Fit

*by Ian Sammis*

EASY

Consider two roommates (their names have been changed to protect the innocent, so we'll just call them Beth and Ramona). They're both staring at their computers, desperately willing their essays to change size.

Ramona loves the class. She's spent the last five weeks living in the library researching her essay. The work has paid off: Her essay is chock-full of solid facts, interesting tidbits, and the occasional witty comment. Unfortunately, it's also nine-and-a-half pages long, though the assignment called for no more than eight.

Beth has the opposite problem. Thinking back on the term, she remembers drinking an awful lot of coffee in the student union, but not much else. Moreover, she'd completely forgotten about the essay until three days ago. She bought the recommended clear-plastic binder and managed to scramble out four forgettable pages, but she needs at least five.

The next day, Beth turned in five pages, while Ramona turned in eight. How'd they do it? Word processors have a lot of tools that can help desperate students change the length of their essays without madly blathering nonsense or chopping out any of the hard-won facts that kept them up all night. In this how-to we'll show you how to take advantage of these tools to resize your essay using either Microsoft Word 98 (http://www.microsoft.com) or Apple's AppleWorks 5 (http://www .apple.com). Before you start, be warned that these tricks are a bit like aftershave—used sparingly, they can give you the effect you're looking for, but if you use them too frequently you'll start to reek of desperation. Of course, if your instructor has long since decided to disallow these tricks by placing exact specifications on essay fonts and margins, you're out of luck—if you flunk a course after favoring these instructions over the ones your teacher handed out, we don't want to hear about it.

**IF YOU'RE DESPERATE TO FILL SPACE, we'll show you how to make a little text go a long way.**

**GRAB-A-GLYPH. Unless the instructor tells you otherwise, pick a font that flows the way you want.**

**IF YOU'D RATHER USE SEVERAL THOUSAND more words to paint those pictures you couldn't include, we'll show you how to cram in the text subtly.**

**A HAIR OFF NORMAL. Both 11 and 13 points are font sizes, too—don't let 'em feel left out.**

**MARGINALLY NARROWER. Although playing with the left margin isn't a good idea at all, sometimes you can quietly shift the right margin to change the way text flows.**

**DOUBLE, DOUBLE, TOIL AND TROUBLE. Proper double spacing is hard to detect—if necessary, slide the lines just a little closer together or further apart.**

**WIDOWS—A TYPESETTER'S BANE. The occasional lone word stranded on the last line of a paragraph can sometimes make the difference between an essay that's half a page short and one that fits perfectly.**

**HY-PHEN-ATION. If you really need to cram words in there, use a trick dating back to the old Elite and Pica typefaces—hyphenate to fit even more words onto a line of text.**

## 1 Choose Your Font Wisely

Although Times is the most frequently used font for essays, it's hardly the only acceptable typeface. As long as your font has serifs (the little cross-strokes at the ends of letter strokes) and isn't too wildly extravagant in its letter shapes, it'll probably look fine. Changing fonts can dramatically affect the length of your essay. Use Times if you're trying to cram more words into a smaller space; Times was originally invented to squeeze a lot of text into tight newspaper columns without sacrificing legibility. If you're trying to pad your essay, Palatino and Garamond are both good choices—they're both stately, old-fashioned fonts that occupy quite a bit more space than Times.

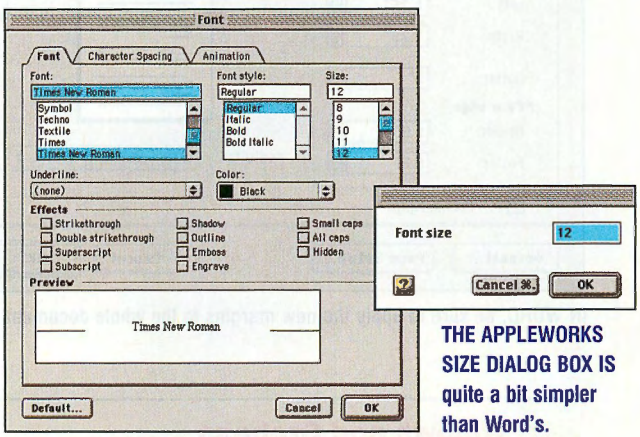
It makes a difference which font you use.
It makes a difference which font you use.
It makes a difference which font you use.
It makes a difference which font you use.
It makes a difference which font you use.
It makes a difference which font you use.
It makes a difference which font you use.

**EVEN AT THE SAME SIZE, different fonts take up very different amounts of space on a page.**

## 2 What's the Point?

Most essays are written in 12-point type. If you wander too far from this size, you'll make your motives transparent. For example, 14 points is quite large, and leads readers to suspect that your essay is straining for length. But 13-point type isn't nearly so obvious; it adds length without conveying total desperation. To fit excess baggage, try 11-point type, although even 10-point type is acceptable if you're desperate (essays were traditionally written in 10-point Courier, but because they lack proportional spacing, fixed-width fonts tend to look larger at a given size than other fonts).

To set an arbitrary font size in Word, choose Font from the Format menu. Instead of choosing one of the usual font sizes, type the size you want in the field labeled Size. In AppleWorks, select Other from the Size menu, then type the size you want in the Font Size field.



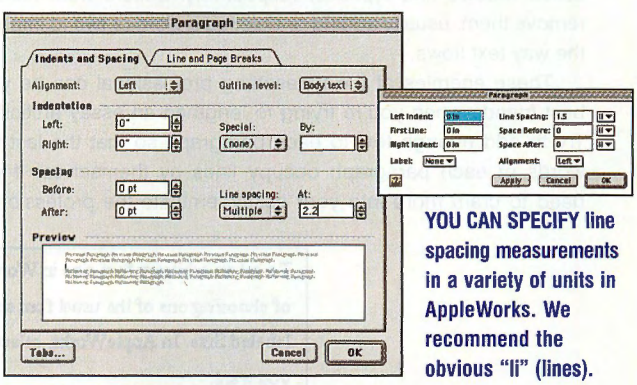

**THE APPLEWORKS SIZE DIALOG BOX IS quite a bit simpler than Word's.**

**BY TYPING NUMBERS directly into the field under Size, you can get arbitrary font sizes.**

## 3 Line Spacing Games

Usually, the instructor tells you to double-space essays so he will have plenty of room to add comments and corrections between the lines. It's very hard to determine the line spacing visually without quite a bit of practice, so nearly any spacing between 1.5 and 2.2 will look reasonably like double spacing. Although it's difficult to detect, fiddling with the line spacing can dramatically change the length of your essay.

In Word, first select your entire essay. Choose Paragraph from the Format menu. In the field next to Line Spacing, type the line spacing you want. The procedure is nearly identical in AppleWorks—select the entire essay, choose Paragraph from the Format menu, and type the desired spacing in the Line Spacing field.




**YOU CAN SPECIFY line spacing measurements in a variety of units in AppleWorks. We recommend the obvious "li" (lines).**

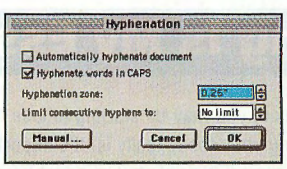
**THE MULTIPLE OPTION next to Line Spacing in Word will give us line spacing 2.2 times the usual spacing.**

## 4 Hyphenation Packing

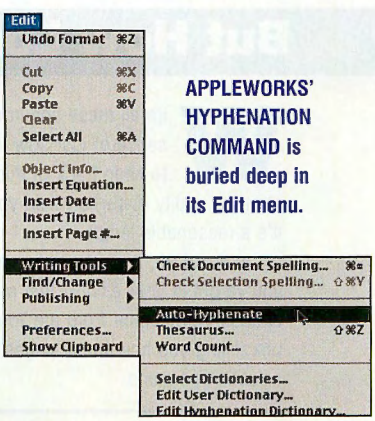
Most word processors include dictionaries that allow the program to break words at line endings in an attempt to fit more words onto a single line. Clever use of hyphenation will often let you squeeze in just those few extra words.

In Word, the Hyphenation tool is hidden in the Language submenu of the Tools menu. If you're willing to let Word hyphenate your text without interference, first set the Hyphenation Zone (the size of the gap a word wraparound has to leave before Word will hyphenate—the smaller the gap, the more hyphens Word will insert). Next, choose whether you want all-caps words to break, and enter the number of consecutive hyphens you'll allow. Click OK. If you want to watch Word as it works, click the Manual button and Word will show you what it's doing as it goes along.

In AppleWorks, just choose Auto-Hyphenate from the Writing Tools submenu of the Edit menu.



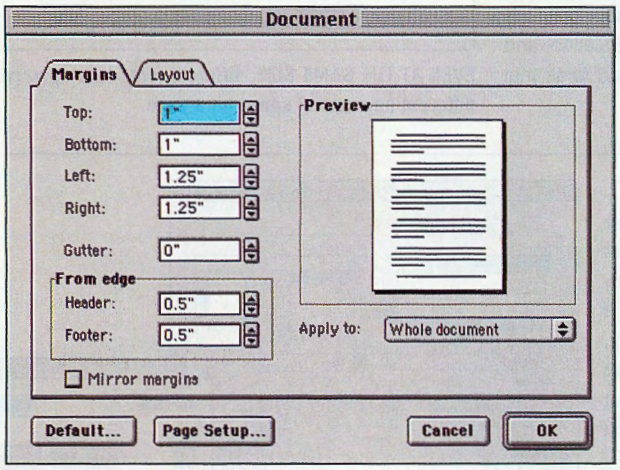

**WORD GIVES YOU a number of options that determine how it breaks words.**



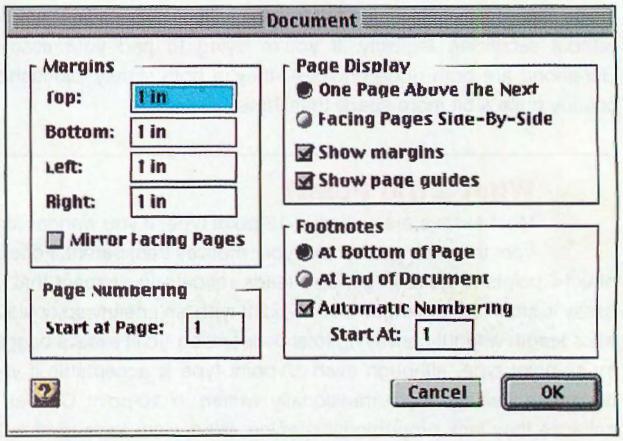

**APPLEWORKS' HYPHENATION COMMAND is buried deep in its Edit menu.**

## 5 Room on the Margin

Students hoping to get just a tiny bit more space out of their essays often make the mistake of moving their left or top margins. Fiddling with these margins is deadly—it's immediately discernible upon inspection, as every line starts at the left margin and every page at the top margin. A much better idea is to move your *right* margin slightly. If you left-justify your text, it's difficult to tell exactly where the right margin is—the lines just break a tiny bit earlier or later. Similarly, you can subtly nudge up the bottom margin—nudging it down isn't subtle at all!




IN WORD, be sure to apply the new margins to the whole document.




APPLEWORKS MAKES you type in units: in (inches), cm (centimeters), mm (millimeters), pt (points), or pc (picas).

## 6 Widows and Orphans

Typesetters and copy editors hate it when one or two words of a paragraph end up on a line by themselves—called *widows* and *orphans,* respectively. Editors work hard to remove them, usually adding or deleting a word or two to improve the way text flows.

These enemies of the typesetting professional can be your best friends when you're trying to lengthen an essay artificially. Try to add enough text to each paragraph so that the last few words of each paragraph occupy lines by themselves. If you need to cram more into your essay, emulate the professionals and exterminate every widow you can find—each one's wasting an entire line of space you could put to better use.

Creating or removing widows isn't a formatting trick, it's simply a result of being aware of the way text flows. This means that even when an instructor has exhaustively specified the format of the essay, ruling out most of the techniques mentioned in this article, you can still use widows to your benefit. (If you're having trouble removing a widow, try hyphenating the paragraph in which it occurs—sometimes that frees up just enough space to make the text reflow).

To set an arbitrary font size in Word, choose Font from the Format menu. Instead of choosing one of the usual font sizes, type the font size you want in the field labeled Size. In AppleWorks, select Other from the Size menu, then type the size you want.

A WIDOW EATS UP AN ENTIRE LINE with only a word or two.

**Ian Sammis is still trying to beat Marathon, all these years later.**

# But How Long Is My Essay?

With all these tips in mind, you may be starting to lose any sense of just how long your essay really is. It's important to keep track of this, even if it's only to know just how strong a reality distortion field you'll need to make your essay look like it's a reasonable length.

In Word 98, it's extremely easy to find out how many words you've got in your essay: Just make sure nothing's selected, then choose Word Count from the Tools menu. Word displays a dialog box telling you how many pages, lines, words, and characters the selection contains.

If you want to estimate how many pages long your essay would be if you weren't tinkering so much with its display, set your font to 10-point courier and set spacing to double. Courier is monospaced, so each letter has the same width (just as it did on that typewriter you stuck in your closet when you got a computer). Double-spaced Courier 10 is usually a close approximation of what your instructor had in mind when she specified a page count, as it's a very close approximation of the old pica typewriter font. Setting your essay to 10-point Courier can be good for your morale—although it looks awful, it tends to fill more space than almost any other format.

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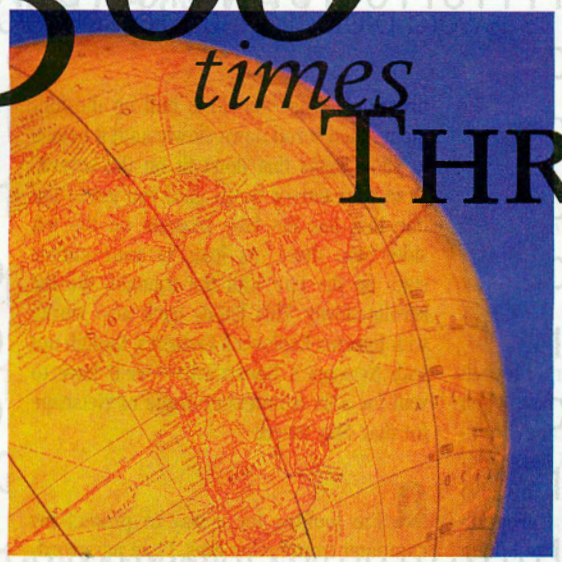

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OBJECT
SCENE

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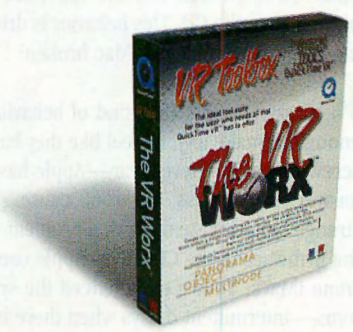


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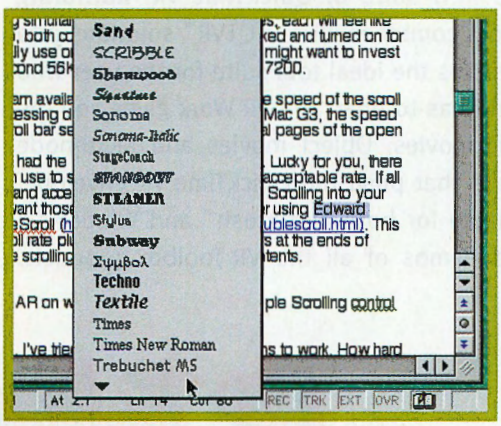
*Submit technical questions or helpful tips directly via email (askus@macaddict.com) or c/o* MacAddict, *150 North Hill Dr., Brisbane, CA 94005.*

**Q** My new iMac is super fast, and I love it! However, sometimes it seems *too* fast. When I'm scrolling through my Netscape bookmarks, it flies down the list, and I have trouble stopping on the one I want. This also happens in my word processing program when I try to choose a font. What can I do to slow down scrolling?

**A** We addressed this question a while ago (Dec/98, p100; http://www.macaddict.com/issues/9812/askus.html), but lots of things have changed since then. Owen Linzmayer recommended using Edward Voas's' shareware control panel Doublescroll (http://www.amargosa.com/doublescroll.html). Unfortunately, this software is not compatible with Mac OS 8 or 9 and is not going to be updated. Apple has a control panel called Scrolling that lets you adjust scroll speed, but it doesn't work with OS 8 or 9 either.

Apple does, however, offer a tip that works quite well with the font menu in most programs. What you do is pull up the font menu, then scroll down slowly until it begins to show items that don't fit on the screen. Drag your cursor down until you get to the line that has the little triangle on the left side. Stop there. As long as your cursor stays on the line with the triangle, the list scrolls slowly. This handy trick also works with Internet Explorer's Favorites, though not with Netscape's Bookmarks—we'll have to wait for a fix from either Apple or Netscape for that. Stay tuned!




**SLOW DOWN THAT MENU—take advantage of that little triangle.**

**Q** I'm looking for a way to protect my computer from prying eyes. I can password-protect my PowerBook using the included software, but my desktop computer doesn't have that option.

**A** Password protection can provide a nice degree of security. At startup, you get a prompt for a password. If you know it, no problem—if you don't, the Mac won't start up. PowerBooks have shipped with this feature for many years because their mobility means they're more likely to end up in the wrong hands. This sort of security is less popular (some might call it downright annoying) on desktop computers, since in general authorized persons are using them.

That's not to dismiss your question—even Apple has realized it must offer this feature in order to expand beyond the consumer and publishing markets. For a single-computer setup, try SearchWare Solutions' Startup Lock (http://www.radiks.net/search/Pages/StartupLock.html). This free control panel allows easy password security for any Mac. Additionally, Mac OS 9 (http://www.apple.com/macos) introduced a multiple-user system that accommodates each individual's different access privileges (see "Set Up Multiple Users," Jan/00, p86). You enter a password or voice print at startup, and the computer determines whether you are authorized to use it. For a networked setup, Apple still has At Ease, which is part of the Apple Network Administrator Toolkit (http://www.apple.com/networking/anat) as well as the new Macintosh Manager (http://www.apple.com/za/macosx/server) to handle log-in security.

**Q** I'm creating a multimedia presentation, and the software I'm using won't accept MP3 files. The documentation says I should use AIFF files for audio. How do I convert MP3 into AIFF?

**A** Oh, how we love our MP3! Stunning audio quality and small file sizes—wow! However, before MP3 came out, we had AIFF (Audio Interchange File Format). Created as a way to work with high-quality audio files, AIFF actually sounds better than MP3. The downside is that the files are much larger. If you need to convert an MP3 file into AIFF, the easiest solution is a freeware program called MPecker Drop Decoder 1.6.4 (http://www.hitsquad.com/smm/programs/MPeckerDrop). This drag-and-drop utility creates an AIFF file lickety-split. Be aware that the file size will increase dramatically, to about 10 times the original MP3 size.

**Q** My iMac seems to pause every few seconds. Oddly enough, it works fine when I'm playing an audio CD. This behavior is driving me crazy. Is my beloved iMac broken?

**A** Crazy is right! This kind of behavior is enough to make anyone feel like they have a screw loose. But never fear—Apple has the answer, as well as the root cause. This strange behavior stems from a problem with the firmware in the CD drives Apple used in some iMacs. You've experienced the symptoms—intermittent delays when there is no CD in the drive.

Luckily, Apple has released a fix called the iMac CD Update 2.0. You can download it from Apple's software update site (http://asu.info.apple.com). The fix has

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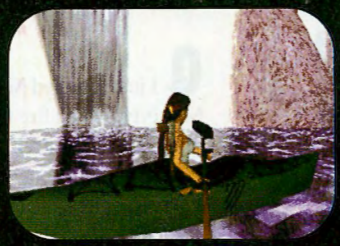

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the side benefit of reducing disc vibration. Anyone with an iMac (first-generation only, not the slot-loading models) should run this utility to make sure the firmware on the CD drive is up to date.

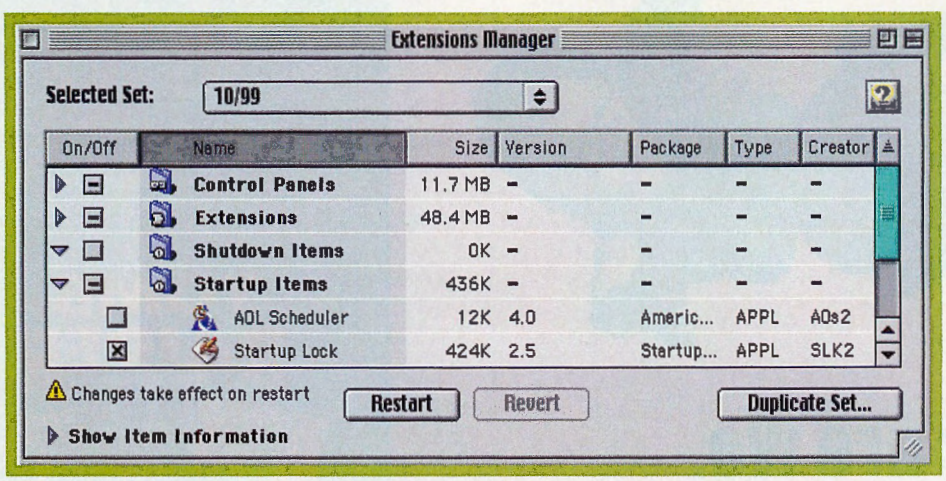
**Q** I just installed Netscape Communicator. Now every time I fire up my computer, a program starts by itself, then just goes away. What is this? Do I need it, and if not, how do I get rid of it?

**A** Netscape installs lots of really useful software that makes our online lives much more enjoyable. However, it also installs some software that you may not need—and that may cause problems.

In this particular case, the problematic program is a piece of AOL software. This mysterious self-launching app is AOL Scheduler, which Netscape installs in your system's Startup Items folder. Any item placed in this folder launches after your computer starts up.

This AOL utility enables you to use the AOL Instant Messenger program, another Netscape installation. You don't need this software unless you want access to AOL's messaging system or you actually use AOL as your service provider.

If you don't use either AOL or Instant Messenger, you can safely disable AOL Scheduler using the Extensions Manager control panel. While you're at it, you can also disable the AIM Menu extension and any other AOL extensions.




**STOP AUTOMATIC AOL LAUNCHES by disabling the AOL Scheduler application.**

**Q** I have noticed that some of the readme files that come with software have pictures in them. I have tried to put graphics into my SimpleText documents, but copy and paste doesn't work. How do you create a SimpleText document with graphics in it?

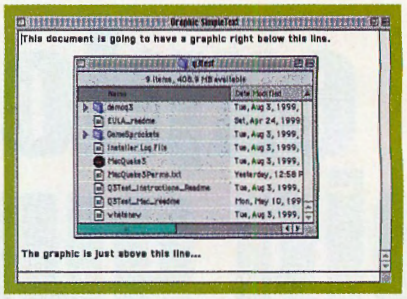
**A** Considering that the Mac is so user friendly, the process for putting a graphic into a SimpleText document is surprisingly difficult. The results, however, are wonderful—you end up with a document that any Mac user on the planet can double-click to open and view without additional software.

Now the tricky part—the creation. Be aware that SimpleText allows only for limited formatting—this is true of both text and graphics. The first step is to create your graphics and store them in Scrapbook (simply copy and paste them into the Scrapbook application in the Apple menu). Once you have done this, type your text in a new SimpleText document.

The next step is harder: Wherever you want one of your graphics to appear, create a nonbreaking space character (the ASCII code is $CA) by typing Option-spacebar. You can replace each appearance of this placeholder character with a graphic. Also insert hard returns after the special characters to give the graphics some breathing room. Add as many placeholders as you want—just keep in mind how you want to order your graphics. This will be important later; the graphics you place will fill the space these characters occupy.

After you have created your SimpleText document, complete with text and graphics placeholders, save it and open it with ResEdit (http://asu.info.apple.com/swupdates.nsf/artnum/n10964). Open the Scrapbook and find the first graphic you want to insert. Copy this picture and paste it into ResEdit. This creates a PICT resource numbered 128. Double-click the PICT resource and choose Get Resource Info from the Resource menu. Change the ID from 128 to 1000, then continue numbering the rest of your graphics: 1001, 1002, 1003, and so forth. Each subsequent graphic will correspond to the next special character in the Text document.

All that's left to do is save the file and reopen it in SimpleText to view your changes. You may need to make some more formatting modifications to clean the file up. When you're done, add the final touch by making it a read-only document: Open it again with ResEdit and change the Type to ttro and the Creator to ttxt.




**USE RESEDIT AND SOME FANCY CHARACTERS to do the seemingly impossible—put graphics into a SimpleText file.**

**Q** I have a PowerBook G3 Series with a DVD drive, running OS 8.6 with DVD software version 1.2. When I bought *The Matrix* on DVD and loaded it in my computer, an icon for the movie appeared on the desktop. But when I opened the Apple DVD Player, it said it could not play the disc. I thought I had bought a defective disc, but it worked flawlessly with my set-top DVD player, and all my old DVDs still worked with my PowerBook. What is wrong with my DVD system?

**A** This is a known problem with Apple's DVD software, and Mac OS 9 and DVD Player 1.3 repair it. The problem arises from the formatting of certain DVD disks. Some are formatted as ISO 9660, a common PC format. Other disks are formatted as UDF (Universal Disk Format) volumes. The DVD software prior to OS 9 didn't read the UDF format correctly, and reported the disk as damaged and unplayable.

There is a work-around for pre-OS 9 systems. According to Apple, you should hold down Command-Option-I while inserting the DVD disc. Then the system reads the disc as an ISO 9660–formatted disc rather than a UDF-formatted disc. If the disc does mount but appears with the DVD emblem on the icon, the disc has mounted in the wrong format. To get it to mount correctly, Control-click the icon and select Mount As ISO 9660 from the contextual menu that pops up. The disc will remount with a generic icon.

**Buz Zoller is a technology support specialist for a school district in Texas. He is very proud to be part of the *MacAddict* team. Hook 'em!**

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| **CD REWRITABLE** *Includes 5 Free ReWritable Disks!* | | |
| **6x4x16 YAMAHA mechanism, SCSI, tray load, 2MB buffer** | $189 | $249 |
| 4x2x20 Plextor mechanism, tray load, 2MB buffer, SCSI | $289 | $339 |
| 6x4x24 Ricoh mechanism, tray load, 2MB buffer, SCSI | $239 | $299 |
| 8x2x20 Sanyo mechanism, tray load, 2MB buffer, SCSI | $319 | $369 |
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| Floppy Drive (USBFLOPPY) | $89 |
| 6.4GB Hard Drive (USB6GB) | $179 |
| 8.4GB Hard Drive (USB8GB) | $199 |
| 13GB Hard Drive (USB13GB) | $219 |
| 17.2GB Hard Drive (USB17GB) | $239 |
| USB Case for IDE hard drive (USBCASE) | $89 |
| 4X4X16 USB CD Rewritable Kit (USB4X4X16) | $279 |

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| Pioneer Bare SCSI 32X DVD ROM (DVD303) | $140 |

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| | |
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| Toshiba SCSI DVD RAM drive (SDW1111) | $429 |
| Panasonic SCSI DVD RAM drive (LFD103U) | $539 |
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| 36.4GB | 7200 | 2MB | KN336400LW | $849 |
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| **IDE Ultra ATA/66** | | | | |
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| 8.4GB | 512K | 5400 | QML08400LA | $120 |
| 13.0GB | 512K | 5400 | QML13000LA | $137 |
| 13.6GB | 512K | 5400 | KX313600A | $169 |
| 17.3GB | 512K | 5400 | QML17300LA | $169 |
| 20.5GB | 512K | 7200 | KX320500A | $229 |
| 26.0GB | 512K | 5400 | QML26000LA | $279 |
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| 9.1GB | 7200 | 2MB | IBM309170N | $250 |
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| 9.1GB | 7200 | 2MB | IBM309170W | $250 |
| 18.2GB | 7200 | 2MB | IBM318350W | $475 |
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| 9.1GB | 7200 | 2MB | IBM309170U2 | $250 |
| 9.1GB | 10,000 | 2MB | IDMVS9U2 | $389 |
| 18.2GB | 7200 | 2MB | IBM318350U2 | $475 |
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| 20.3GB | 5400 | 2MB | IBM20GP | $195 |
| 22.0GB | 7200 | 2MB | IBM22GXP | $245 |
| 25.0GB | 5400 | 2MB | IBM25GP | $235 |
| 27.3GB | 7200 | 2MB | IBM27GXP | $255 |
| 34.2GB | 7200 | 2MB | IBM34GXP | $345 |
| 37.5GB | 5400 | 2MB | IBM37GP | $345 |

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| 8.4GB | 5400 | 512K | WDAC84AA | $129 |
| 10.2GB | 5400 | 512K | WDAC102AA | $133 |
| 13.0GB | 5400 | 512K | WDAC136AA | $148 |
| 13.6GB | 7200 | 2MB | WDAC136BA | $155 |
| 17.2GB | 5400 | 512K | WDAC172AA | $194 |
| 20.5GB | 5400 | 512K | WDAC205AA | $199 |
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| 9.1GB | 7200 | 1MB | ST39175LW | $317 WOW! |
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| 18.2GB | 10,000 | 1MB | ST318203LW | $699 |
| 18.2GB | 10,000 | 4MB | ST318203LW4 | $729 |
| 36.4GB | 7200 | 1MB | ST136475LW | $919 |
| 36.4GB | 10,000 | 1MB | ST136403LW | $1119 |
| 50.1GB | 7200 | 1MB | ST150176LW | $949 |
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| 6.4GB | 5400 | 256K | ST36421A | $105 |
| 8.6GB | 5400 | 256K | ST38421A | $116 |
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| 13.3GB | 5400 | 512K | ST313032A | $135 |
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| 8.7GB | 5400 | 512K | M90871U2 | $112 |
| 13.6GB | 5400 | 512K | M91301U3 | $129 |
| 13.6GB | 7200 | 2MB | M91369U3 | $150 |
| 17.3GB | 5400 | 2MB | M91737U2 | $160 |
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| 18.1GB | 12.5mm | Toshiba | MK1814GAV | $Call |
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| **• WIDE SCSI •** | | | | |
| Plextor | PX40TSUW | 40X | 85ms | $120 |
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| Teac | CD532E | 32X | 85ms | $50 |
| NEC | CDR3000 | 40X | 75ms | $55 |
| Toshiba | XM6702B | 48X | 85ms | $59 |
| Mitsumi | CRMCFX48X | 48X | 65ms | $55 |
| Creative | SBCD52 | 52X | 100ms | $59 |
| Kenwood | UCR412 | 52X | 90ms | $98 |
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| 12-24GB | 144MB/min | Sony DDS-3 SDT9000AI | | $679 |
| 12-24GB | 132MB/min | Seagate STD224000N | | $699 |
| 12-24GB | 120MB/min | HP DDS-3 C1554AI | | $729 |
| 20-40GB | 288MB/min | Sony DDS-4 SDT10000AI | | $1029 |
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| 7-14GB | 120MB/min | ELIANT820 | | $1299 |
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| **• CD REWRITABLE MEDIA •** | | |
| Budget 5 Pack [CDR74WB-5] | 4x | $11 |
| Budget 20 Pack [CDR74WB-20] | 4x | $41 |
| Budget 50 Pack [CDR74WB-50] | 4x | $89 |
| Budget 100 Pack [CDR74WB-100] | 4x | $149 |
| 5 Pack [CDR74W-5] | 4x | $35 |
| 20 Pack [CDR74W-20] | 4x | $99 |
| 50 Pack [CDR74W-50] | 4x | $239 |
| 100 Pack [CDR74W-100] | 4x | $479 |
| **• CD-R PRINTABLE SURFACE •** | | |
| Budget 5 Pack [CDR74PB-5] | 4x | $9 |
| Budget 20 Pack [CDR74PB-20] | 4x | $33 |
| Budget 50 Pack [CDR74PB-50] | 4x | $59 |
| Budget 100 Pack [CDR74PB-100] | 4x | $109 |
| 5 Pack [CDR74P-5] | 8x | $15 |
| 20 Pack [CDR74P-20] | 8x | $59 |
| 50 Pack [CDR74P-50] | 8x | $99 |
| 100 Pack [CDR74P-100] | 8x | $189 |
| **• CD RECORDABLE PLATINUM MEDIA •** | | |
| 5 Pack [CDR74PA-5] | 8x | $11 |
| 20 Pack [CDR74PA-20] | 8x | $43 |
| 50 Pack [CDR74PA-50] | 8x | $75 |
| 100 Pack [CDR74PA-100] | 8x | $139 |

***OPTICAL MEDIA***

| Size & Description | 1-4 | 5-9 | 10+ |
|---|---|---|---|
| 128MB, 3.5", 512K | $13 | $9 | $7 |
| 230MB, 3.5", 512K | $14 | $10 | $8 |
| 640MB, 3.5", 2048K | $21 | $17 | $15 |
| 1.2Gig, 5.25", 512K | $25 | $23 | $21 |
| 1.3Gig, 5.25", 1024K | $26 | $24 | $22 |
| 2.6Gig, 5.25", 1024K | $33 | $29 | $27 |
| 5.2Gig, 5.25", 2048K | $70 | $68 | $64 |

**• BACKUP TAPES •**

| | 2-4 | 5-9 | 10+ |
|---|---|---|---|
| 4mm DAT 90M | $12 | $9 | $8 |
| 4mm DAT 120M | $14 | $12 | $9 |
| 4mm DAT 125M | $27 | $23 | $20 |
| 8mm DAT 112M | $11 | $10 | $8 |
| 8mm DAT 160M | $16 | $14 | $12 |
| TR4 | $29 | $27 | $25 |
| TR5 | $47 | $45 | $43 |
| **DLT TAPE** | 2-4 | 5-9 | 10+ |
| DLTIII 10-20GB | $36 | $34 | $30 |
| DLTIIIXT 15-30GB | $39 | $36 | $34 |
| DLT IV 20-40GB | $69 | $67 | $65 |

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| La Cie 10GB USB Hard Drive | $259.95 |
| La Cie 20GB USB Hard Drive | 369.95 |
| La Cie 20GB Firewire Hard Drive | 469.95 |
| La Cie 37GB Firewire Hard Drive | 699.95 |

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| APS ST 9GB LVD | 7200 | 329.95 | 399.95 |
| APS Q 9.1GB Ultra 160m LVD | 10000 | 429.95 | 499.95 |
| APS ST 9.1GB LVD | 10000 | 429.95 | 499.95 |
| APS I 18GB LVD | 7200 | 499.95 | 569.95 |
| APS ST 18GB LVD | 7200 | 499.95 | 569.95 |
| APS I 18GB LVD | 10000 | 719.95 | 789.95 |
| APS ST 18GB LVD | 10000 | 689.95 | 759.95 |
| APS I 36GB LVD | 7200 | 979.95 | 1,049.95 |
| APS ST 36GB LVD | 7200 | 919.95 | 989.95 |
| APS ST 36GB LVD | 10000 | 1,149.95 | 1,219.95 |
| APS ST 50GB LVD | 7200 | 999.95 | 1,069.95 |

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| APS ST 9GB | 7200 | 299.95 | 299.95 |
| APS I 18GB | 7200 | 499.95 | 569.95 |

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| G-Series Monitor 19" Sony CPD-G400 | 729.95 |
| G-Series Monitor 21" Sony CPD-G500 | 1,199.95 |
| **LaCie Monitors** | |
| LaCie electron19blue | $669.95 |
| LaCie electron22blue | 1,299.95 |
| **Sony LCD Displays** | |
| Sony Multiscan CPD-L133 | $899.95 |
| Sony Multiscan CPD-L150 | 1,249.95 |
| Sony Multiscan CPD-L181 | 3,299.95 |

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| | |
|---|---|
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| Sony Digital Cybershot DSC-D770 | 1,899.95 |
| Sony Digital Mavica MVC-FD83 | 699.95 |
| Sony Digital Mavica MVC-FD88 | 899.95 |
| Sony Digital Mavica MVC-FD91 | 947.95 |
| Olympus C-2000 Zoom | 879.95 |
| Olympus C-2500L | 1,499.95 |
| Olympus D-620L | 999.95 |
| Nikon Coolpix 950 | 929.95 |
| Epson PhotoPC 800 | 679.95 |
| Epson PhotoPC 750z | 559.95 |

### Digital Video Camcorders

| | |
|---|---|
| Canon ULTURA | CALL |
| Canon ELURA | CALL |
| Canon XL-1 | CALL |
| Canon GL-1 | CALL |

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|---|---|
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| APS HyperDAT® II (DDS-2) SCSI | 649.95 |
| APS HyperDAT® III (DDS-3) SCSI | 899.95 |
| APS HyperDAT® IV (DDS-4) LVD | 1,249.95 |
| APS DLT4000 SCSI | 1,999.95 |
| APS DLT8000 LVD | 4,399.95 |
| APS AIT PLUS Ultra Wide | 1,899.95 |
| APS AIT II LVD | 3,899.95 |
| APS AIT Plus Autoloader Ultra Wide | 3,999.95 |
| APS DDS-3 Autoloader SCSI | 2,999.95 |

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|---|---|
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| Epson Stylus Color 1520 Printer | 499.95 |
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| Epson Stylus Pro 5000 Color Printer | 2,999.95 |
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| Nikon Coolscan III (LS-30) (MAC) | 979.95 |
| Nikon Coolscan III (LS-30) (PC) | 979.95 |
| Nikon Coolscan 2000 (LS-2000) | 1,795.95 |

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|---|---|
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| APC Surge Station Pro 8 w/2 tel | 37.95 |
| APC Net 8 Surge Station | 33.95 |
| APC Net 8 Surge Station w/Net P | 47.95 |
| APC Line Conditioner,R-1250 APC | 129.95 |
| APC Line Conditioner,R-600 APC | 99.95 |
| APC BackUPS Pro 280S APC | 134.95 |
| APC BackUPS Pro 420S APC | 219.95 |
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| APC BackUPS Pro 1400S APC | 459.95 |

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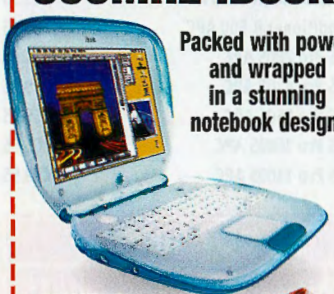

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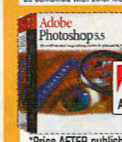


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### iMac Blueberry

- G3 350 MHz Processor
- 6GB Hard Drive
- 64MB RAM; Expandable to 512MB
- 24x Slot-loading CD-ROM
- ATI Rage 128 8MB SDAM w/AGP2xsupport
- Built-in 15" Monitor (13.8" Viewable)
- USB Keyboard & Mouse
- Two USB Ports

### iMac DV in 5 Flavors

- G3 400 MHz Processor
- 10GB Hard Drive
- 64MB RAM; Expandable to 512MB
- Slot-loading DVD-ROM
- ATI Rage 128 8MB SDAM w/AGP 2xsupport
- Two USB Ports
- Built-in 15" Monitor (13.8" Viewable)
- USB Keyboard & Mouse
- Two Firewire Ports
- Video Out Option

### iMac DV Special Edition

- G3 400 MHz Processor
- 13GB Hard Drive
- 128MB RAM; Expandable to 512MB
- 24x Slot-loading DVD-ROM
- ATI Rage 128 8MB SDAM w/AGP 2xsupport
- Built-in 15" Monitor (13.8" Viewable)
- USB Keyboard & Mouse
- Two USB Ports
- 2 Firewire Ports
- Video Out Option

*Cool Software: Mac OS installed with QuickTime, Microsoft Internet Explorer, Microsoft Outlook Express, NetscapeCommunicator, EdView Internet Safety Kit FamilyEdition, Appleworks, Quicken Deluxe, Palm Desktop, FaxSTF, World Book Encyclopedia, Kid Pix Studio Deluxe, Adobe PageMill, Bugdom, and Nanosaur software; complete setup, learning and reference documentation; and limited warranty. Deluxe, Adobe PageMill, Bugdom, and Nanosaur*

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- 8.5 x 11.7

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$99 U010 1105
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- 36 bit
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USB

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| 64MB | DIMM | M905 2364 | $129 |
| 128MB | DIMM | M905 2365 | $259 |
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| 64MB | SYNC DIMM | M905 2364 | $129 |
| 128MB | SYNC DIMM | M905 2365 | $259 |
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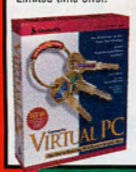

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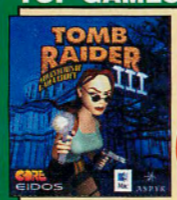

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- 24X maximum variable speed CD-ROM drive
- 56K modem, 10/100 Ethernet
- Translucent polycarbonate case
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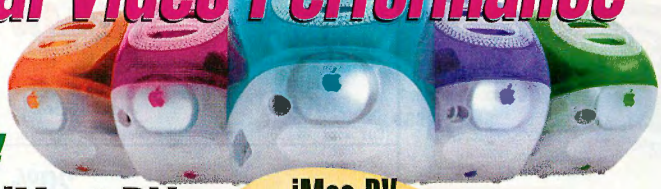

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**64MB** SDRAM
**10.0GB** Hard Drive
**DVD Drive** Slot Loading
**2 FireWire Ports**
**2 USB Ports**
**iMovie** lets you create digital movies!
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iMac DV **$1294.98**

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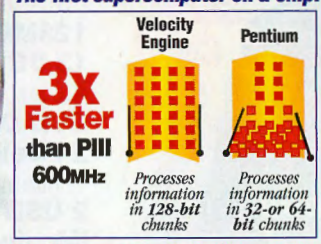


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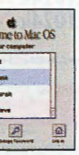
Sherlock 2 automatically downloads software upgrades from the Internet, and even installs them for you!

### File Sharing

now works over the Internet! Share files, folders and data with anyone you wish!

### Multiple-User Log-in

Now you can share your Mac AND keep all your Internet, desktop and application preferences the way you left them!



### Keychain

Keeps track of all your user IDs and passwords so you don't have to!

### Voiceprint Password

Access all your e-mail, Web, and file server accounts with your voice!

### Sherlock 2

Find and do more on the Web faster and easier than ever!

### AppleScript over TCP/IP

Remotely control your Mac (or a whole battery of them) from wherever you are!

### Encryption

Keep your private info private with industrial-strength encryption!

### Network Browser

Find Internet file servers, FTP servers and Web servers as easily as you find printers on your network!

### Newer Technology G3 Upgrade Bundle†

†Compatible with Power Mac 7300, 7500, 7600, 8500, 8600, 9500, 9600; PowerComputing PowerTower, PowerTower Pro, PowerCenter, PowerCenter Pro, PowerWave, PowerCurve; UMAX J700, S900 series; Daystar Genesis MP series

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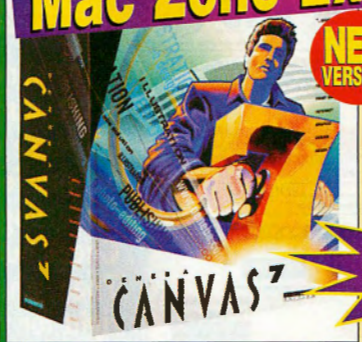


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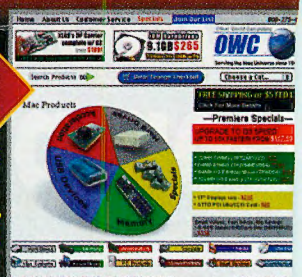

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|---|---|
| G3/240-266mhz 512k 2:1 | $239 |
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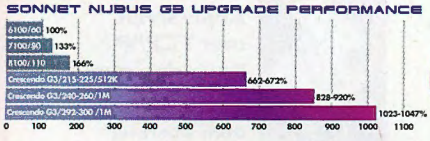

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9 Mac OS 9 Compatible

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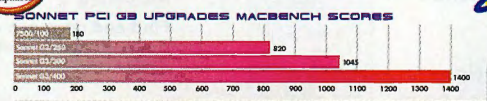

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| Iomega Zip 100mb USB | N/A | $125 |
| Iomega Zip 250mb USB | N/A | $189 |
| Iomega Zip Carts 100mb:$9.50 ea. 250mb:$16.50 ea. | | |
| Iomega Jaz Carts 1gb:$89 ea. 2gb:$95 ea. | | |
| Apple Rom 24X CD-Rom SCSI | $79 | $129 |
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**Storage**
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**400MHz**

## 400MHz iMac DV Models

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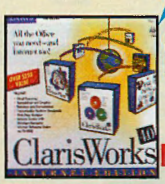

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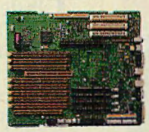

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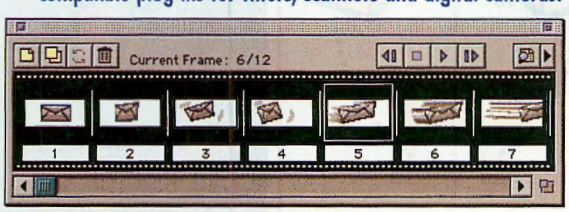


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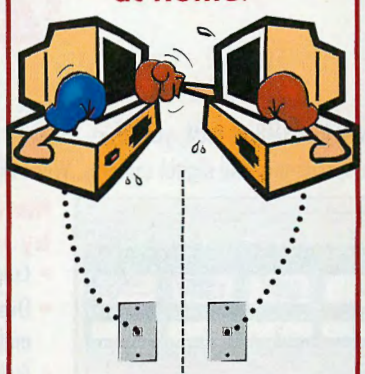

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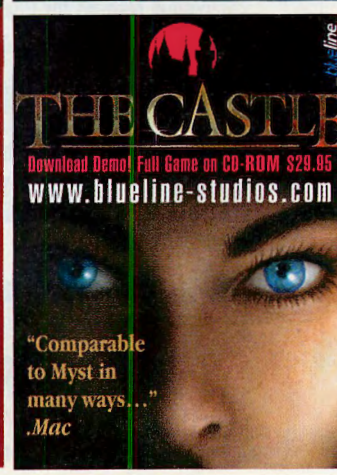

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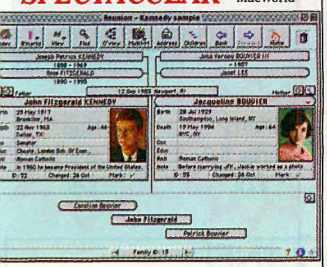

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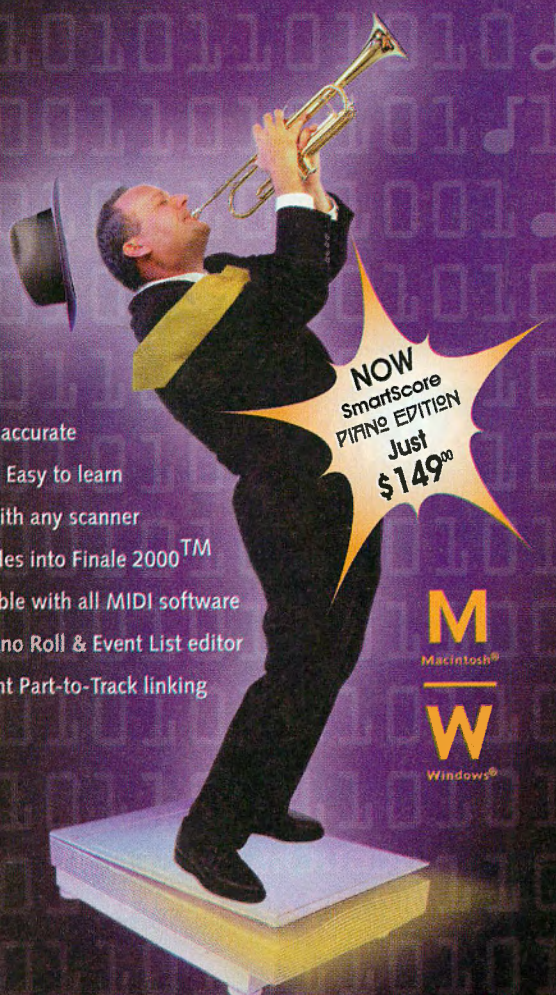


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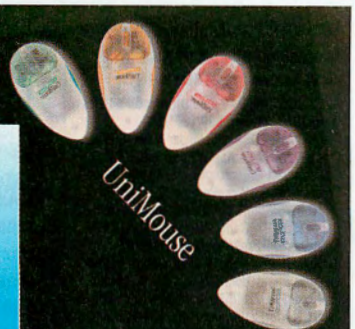


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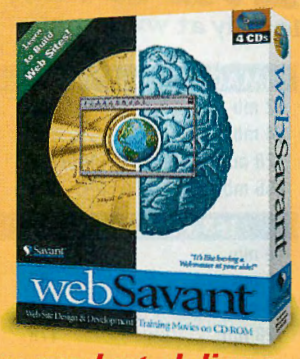


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## Back to the Past

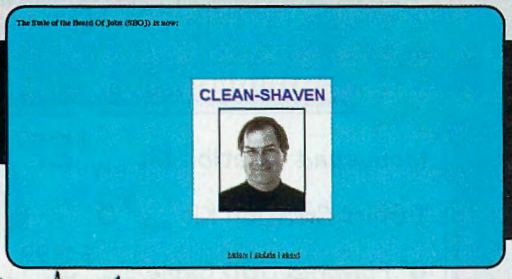
Inspired by the world-gobbling success of the Go Network (the frightening cyberbehemoth that includes ABC.com, Disney.com, and ESPN.com as partners), self-confessed Luddite Ted Kazinsky announced the creation of the Go Away Network, a network portal site devoted to turning back the technological clock. Reports have it that the Go Away Network approached the Society for Creative Anachronisms and the Quakers as potential partners, but both organizations refused. Traffic to the portal has been "disappointing, to say the least," in the words of one unnamed network partner, due mainly to the unwillingness of interested parties to use computers.

## B.F. Skinner Would Be Proud

As reported on Slashdot (http://www.slashdot.org) in November, a Swedish museum has been keeping a specially wired yucca plant on display. Ola Pehrson's Yucca Invest Trading Plant, hooked up via electrodes, tells a computer how to issue trades on the Swedish stock market. If the yucca loses money, it doesn't get any water; if it turns a profit, it does get water. The plant has made an 18 percent profit in the last three months. To view the day-trading yucca, please go to http://www.art.a.se/best_before/about/docimg/ola_yucca.jpg.

## When Hairy Met Smoothy

We've speculated about what Steve Jobs' beard (or lack thereof) really means—now we've been hipped to a Web site that tracks the state of his facial hair. Check out http://www.kband.com/beardojobs for up-to-date tracking of Steve's whiskers. After this January's Macworld Expo keynote, we'll be trying to suss out a facial hair pattern. Don't look to the Beard o'Jobs site for prognostications—it only reports on the current condition of his whiskers.



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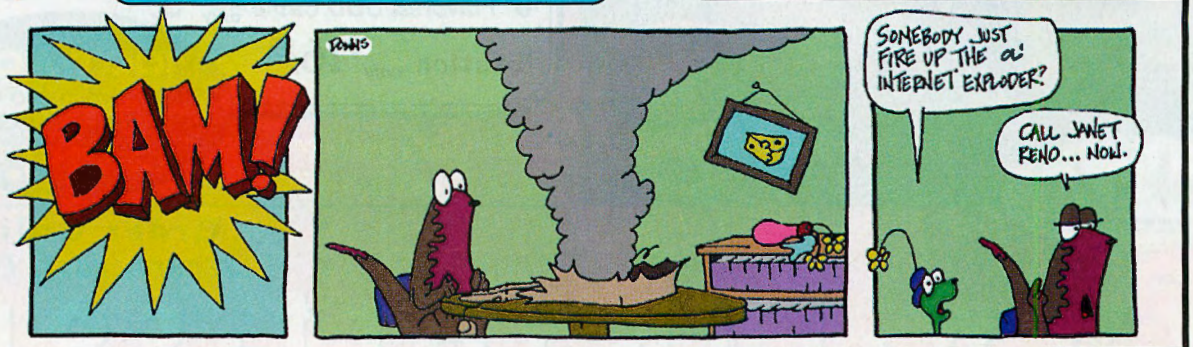


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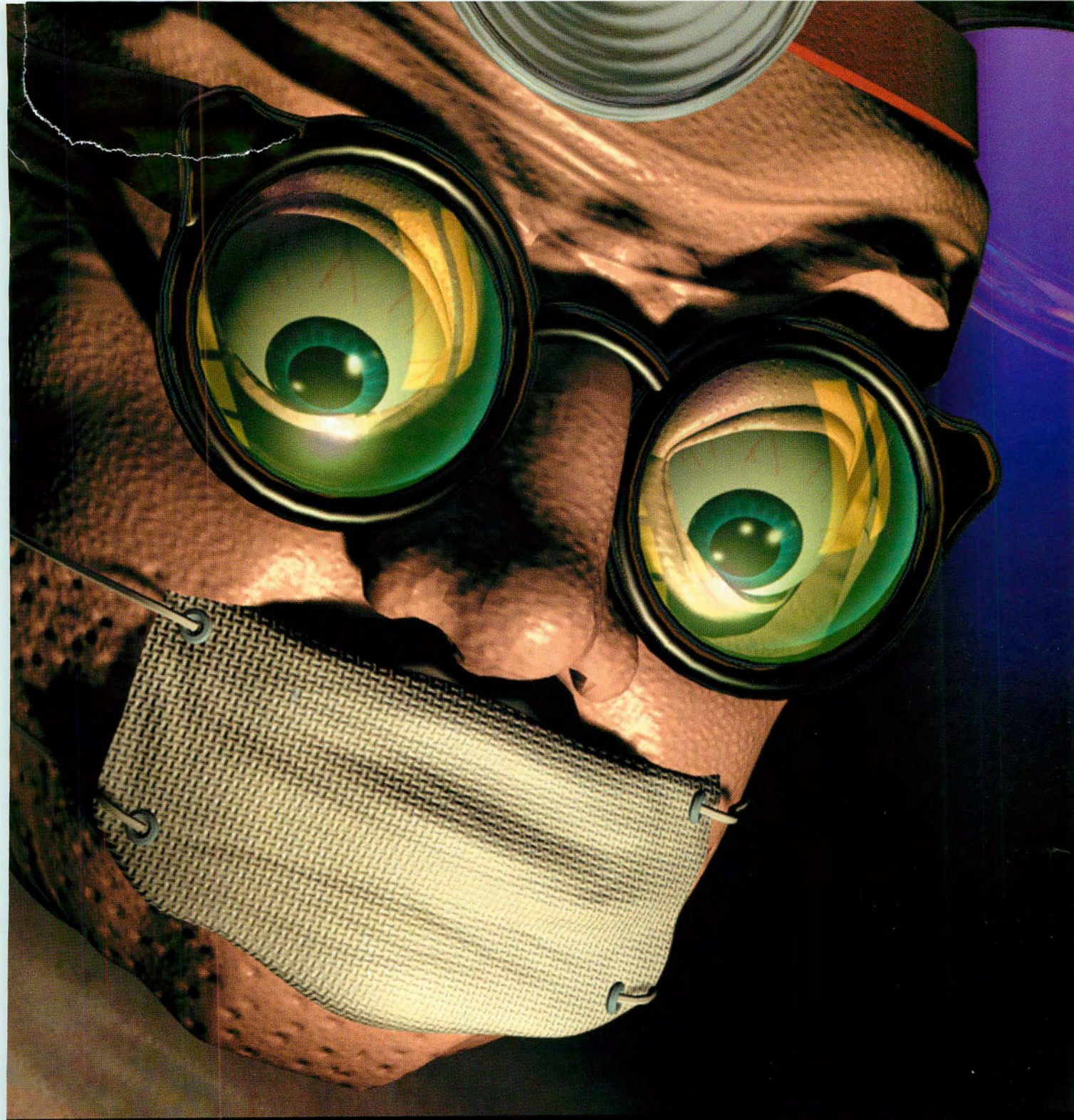

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